



TS12

FLEX-WING MECHANICAL LEVEL LIFT ROTARY MOWER

Rev 09-16

Part No. 00790219P

PART'S MANUAL



An Operator's Manual was shipped with the equipment in the Manual Canister. This Operator's Manual is an integral part of the safe operation of this machine and must be maintained with the unit at all times. **READ, UNDERSTAND, and FOLLOW** the Safety and Operation Instructions contained in this manual before operating the equipment. If the Operator's Manual is not with the equipment, contact your dealer or Servis-Rhino (800-446-5158) to obtain a Free copy before operating the equipment.

ATENCIÓN!

LEA EL INSTRUCTIVO

Si No Lee Ingles, Pida Ayuda a Alguien
Que Si Lo Lea Para Que le Traduzca las
Medidas de Seguridad.



RHINO®

1020 S. Sangamon Ave.

Gibson City, IL 60936

800-446-5158

Email: parts@servis-rhino.com

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TO THE OWNER/OPERATOR/DEALER

All implements with moving parts are potentially hazardous. There is no substitute for a cautious, safe-minded operator who recognizes the potential hazards and follows reasonable safety practices. The manufacturer has designed this implement to be used with all its safety equipment properly attached to minimize the chance of accidents.

BEFORE YOU START!! Read the safety messages on the implement and shown in your manual.
Observe the rules of safety and common sense!



DANGER

FAILING TO FOLLOW SAFETY MESSAGES AND OPERATING INSTRUCTIONS CAN CAUSE SERIOUS BODILY INJURY OR EVEN DEATH TO OPERATOR AND OTHERS IN THE AREA.

1.



2. **NO RIDERS.
NO CHILDREN OPERATORS.**



3. **USE SAFETY SHOES,
HARD HAT, SAFETY
GLASSES, SEAT
BELTS, & ROPS.**



4. **BLOCK UP SECURELY
BEFORE WORKING
UNDER.**



1. Study and understand Operator's Manuals, Safety Signs, and Instructional Decals for tractor & flail mower to prevent misuse, abuse, & accidents. Practice before operating mower in a confined area or near passersby.
 - Learn how to stop engine suddenly in an emergency. Be alert for passersby and especially children.
2. Allow no children on or near implement or tractor. Allow no riders on tractor or implement. Falling off can cause serious injury or death from being run over by tractor or mower or contact with Flail Mower Blades.
3. Operate only with tractor having Roll-Over Protective Structure (ROPS) and with seatbelt fastened securely and snugly to prevent injury and possible death from falling off or tractor overturn. Personal Protective Equipment such as Hard Hat, Safety Glasses, Safety Shoes, and Ear Plugs are recommended.
4. Block up or support raised machine and all lifted components securely before putting hands or feet under or working underneath any lifted component to prevent crushing injury or death from sudden dropping or inadvertent operation of controls. Make certain that area is clear before lowering or folding.
5. Before transporting, put Lift Lever in detent or full-lift position. Install Transport Safety Devices securely on folding implements. Slow down when turning and on hillsides.
 - Install Restrictor in folding circuit to slow down lowering and unfolding if action is faster than is desirable.
6. Make certain that SMV sign, Warning Lights, and Reflectors are clearly visible. Follow local traffic codes.
7. Never operate with Flail Mower or Folding Section raised if passersby, bystanders or traffic are in the area to reduce possibility of injury or death from objects thrown by Blades under Shields or implement structure.
8. Before dismounting, secure flail mower in transport position or lower to ground.
 - Put tractor in park or set brake, disengage PTO, stop engine, remove key, and wait until noise of rotation has ceased to prevent entanglement in rotating parts which may cause injury or death.
 - Never mount or dismount a moving vehicle. Crushing from run over may cause injury or death.

5. **TRANSPORT SAFELY,
LOCK UP.**



6. **USE SMV, LIGHTS, &
REFLECTORS.**



7. **DO NOT OPERATE
WITH MOWER OR
WING RAISED.**



8. **DO NOT MOUNT OR
DISMOUNT WHILE
MOVING.**



002369

WARRANTY INFORMATION:

Read and understand the complete Warranty Statement found in this Manual. Fill out the Warranty Registration Form in full and return it within 30 Days. Make certain the Serial Number of the Machine is recorded on the Warranty Card and on the Warranty Form that you retain. The use of "will-fit" parts will void your warranty and can cause catastrophic failure with possible injury or death.

PARTS SECTION

PARTS ORDERING GUIDE

The following instructions are offered to help eliminate needless delay and error in processing purchase orders for the equipment in this section.

1. The Parts Section is prepared in logical sequence and grouping of parts that belong to the basic machine featured in this manual. Part Numbers and Descriptions are given to help locate the parts and quantities required.
2. The Purchase Order must include the name and address of the person or organization ordering the parts, who should be charged, and if possible, the serial number of the machine for which the parts are ordered.
3. The Purchase Order must clearly list the quantity of each part, the complete and correct part number (be sure to include all periods), and the basic name of the part.
4. The Manufacturer reserves the right to substitute parts where applicable.
5. Some parts are unlisted items which are special production items not normally stocked and are subject to special handling. Request a quotation for such parts before sending a Purchase Order.
6. The Manufacturer reserves the right to change prices without prior notice.

NOTE: Please refer to The Safety Section in the front of this Manual for the proper Part Number when ordering Replacement Safety Decals.



For maximum safety and to guarantee optimum product reliability, always use genuine Servis-Rhino Parts. The use of inferior replacement parts may cause premature or catastrophic failure which could result in serious injury or death. Direct any questions regarding parts to:



RHINO®
1020 S. Sangamon Ave.
Gibson City, IL 60936
800-446-5158
Email: parts@servis-rhino.com

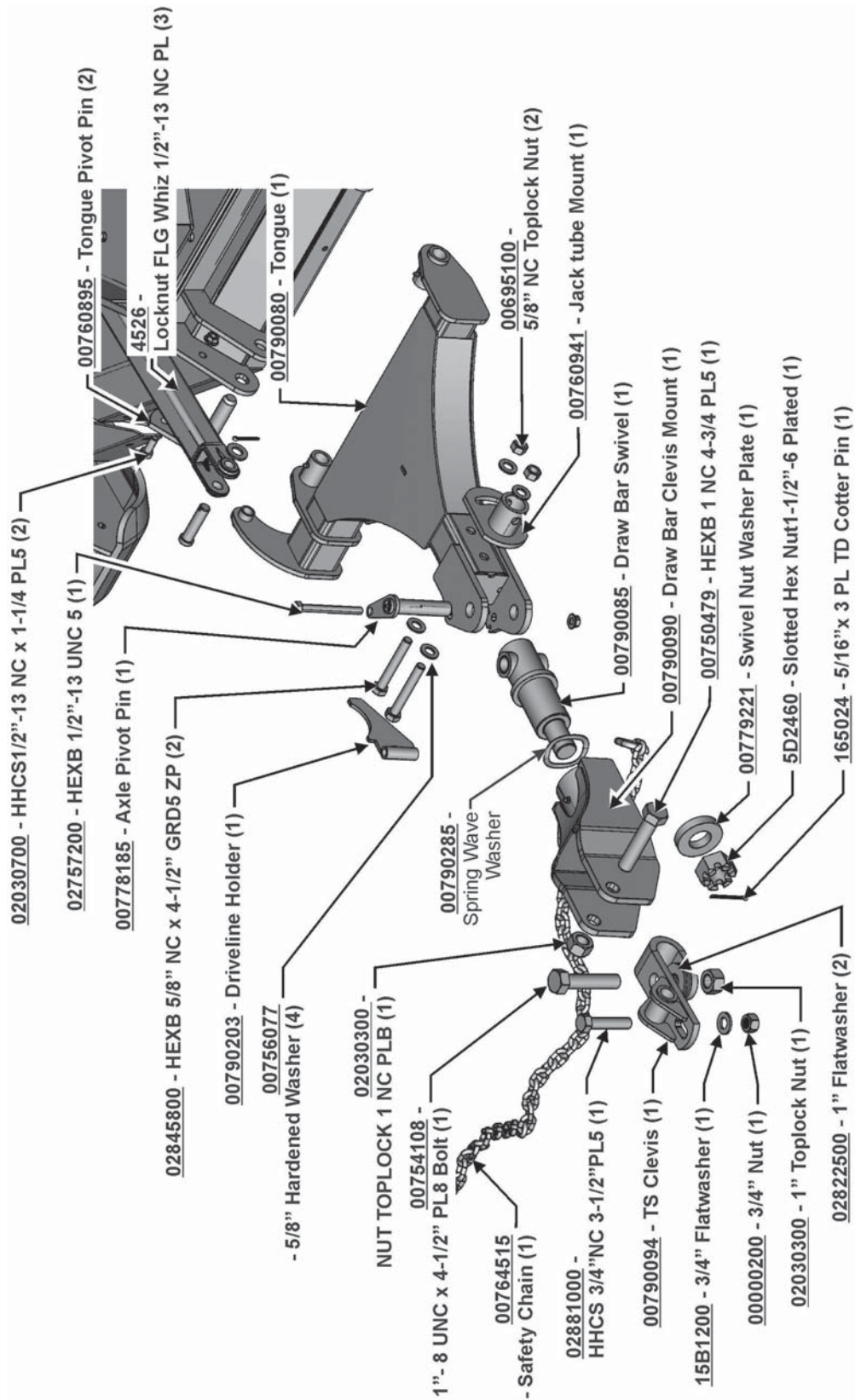


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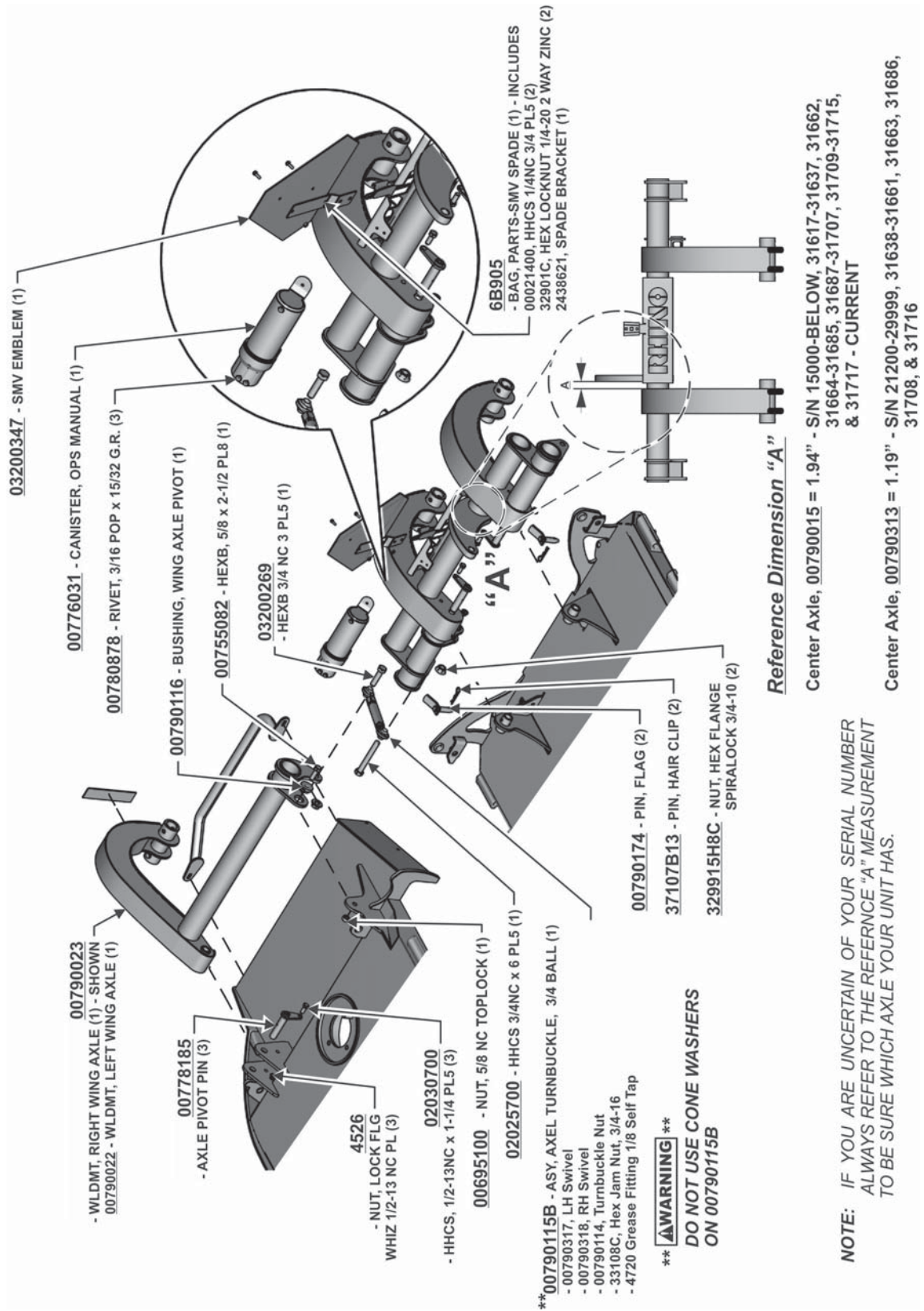
TONGUE ASSEMBLY



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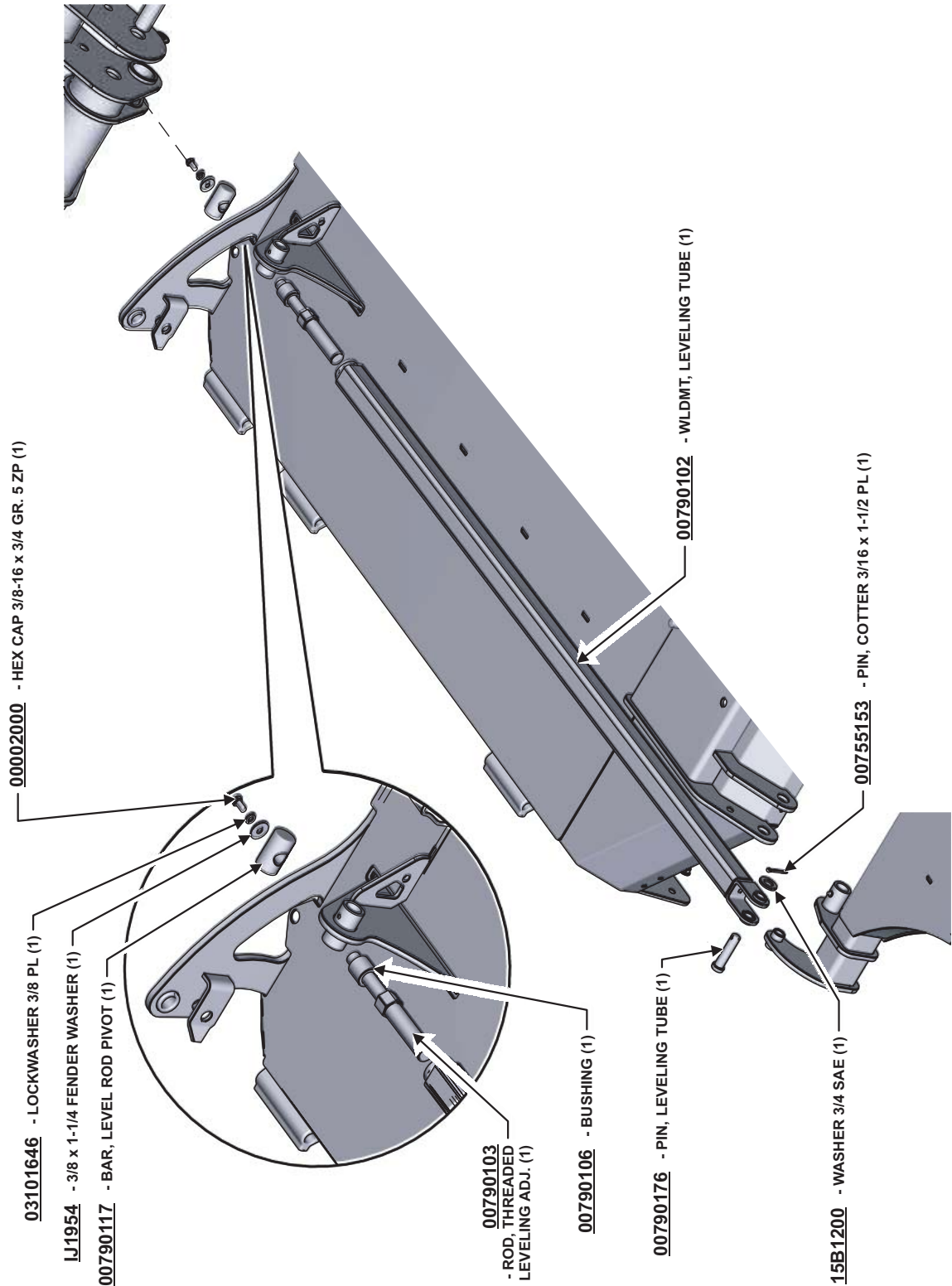


REAR AXLE ASSEMBLY



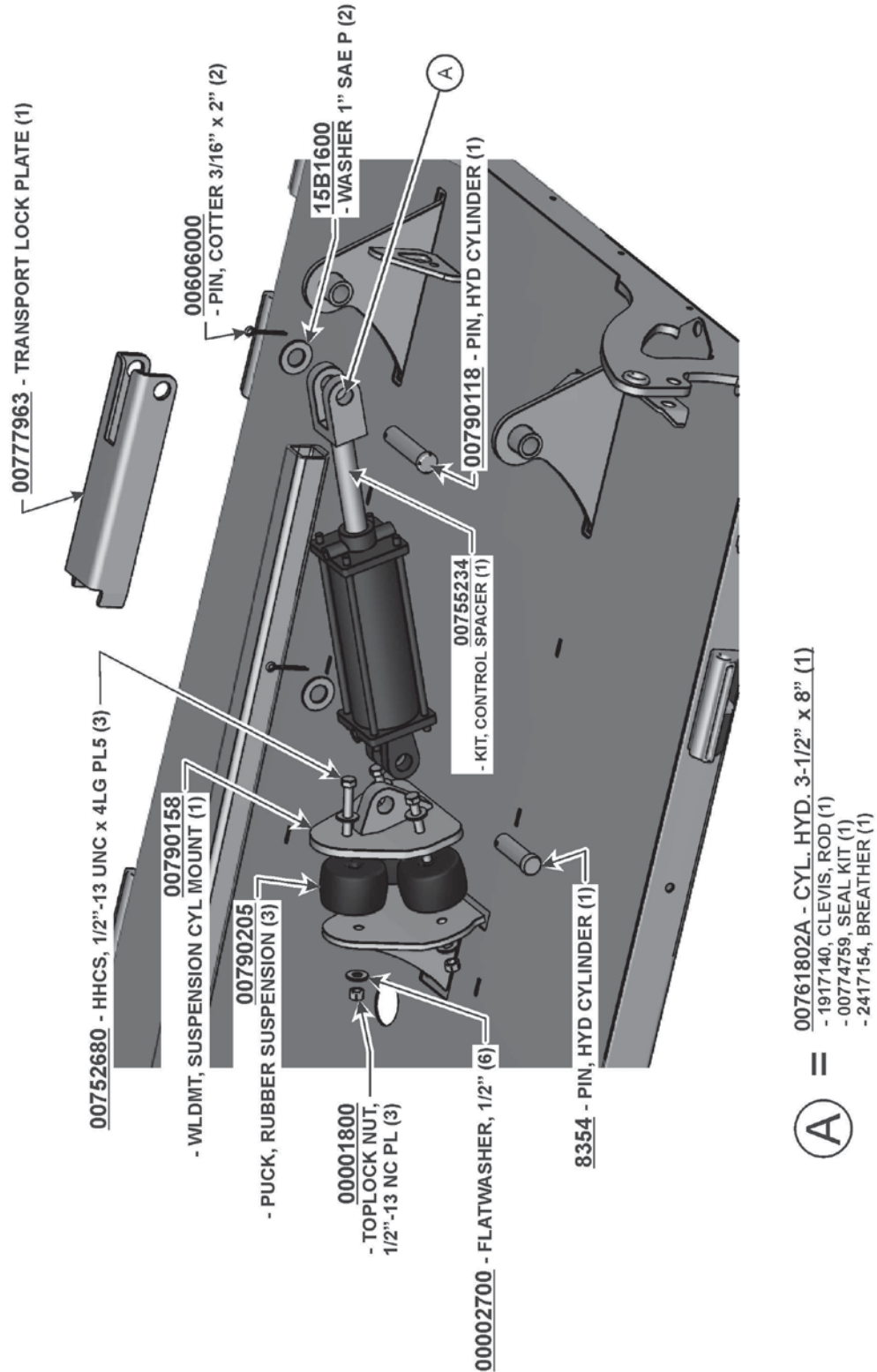


LEVEL TUBE ASSEMBLY



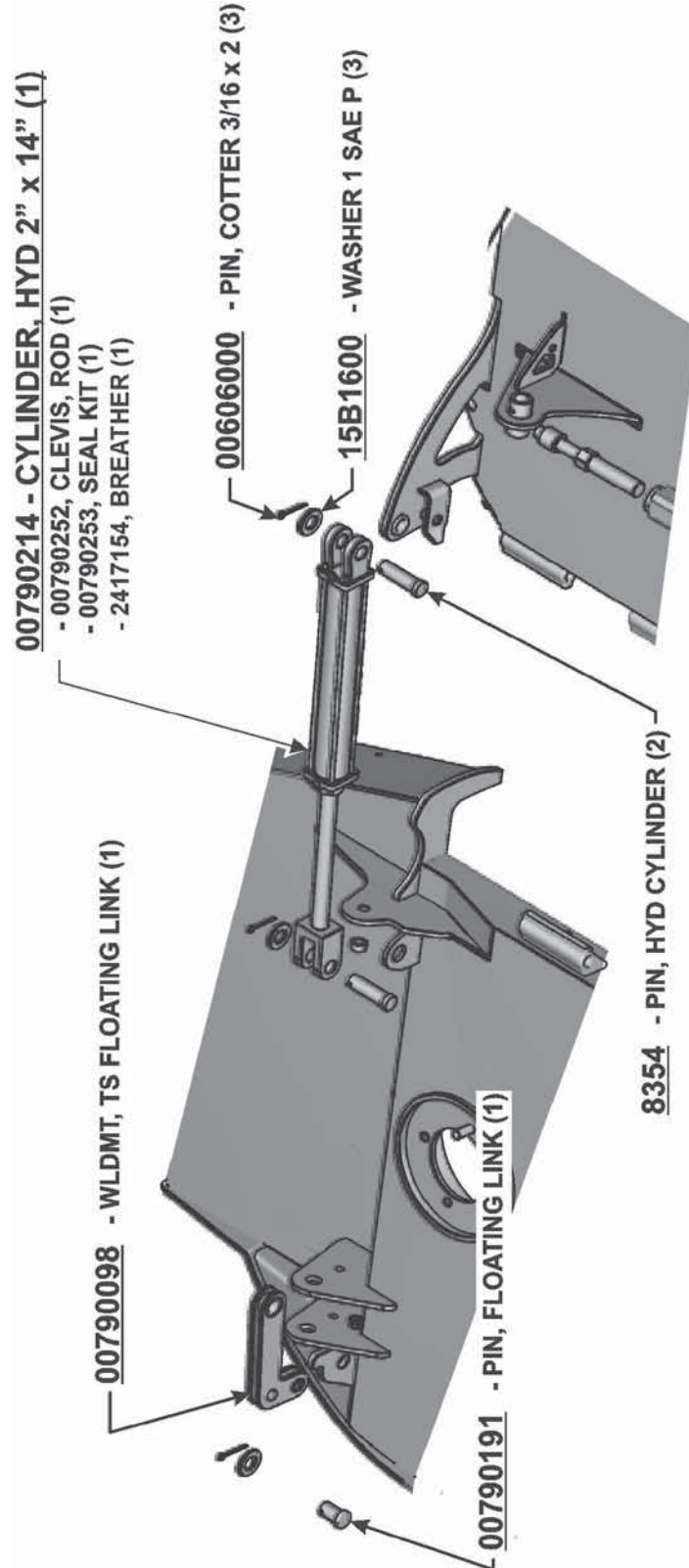


SUSPENSION POD ASSEMBLY





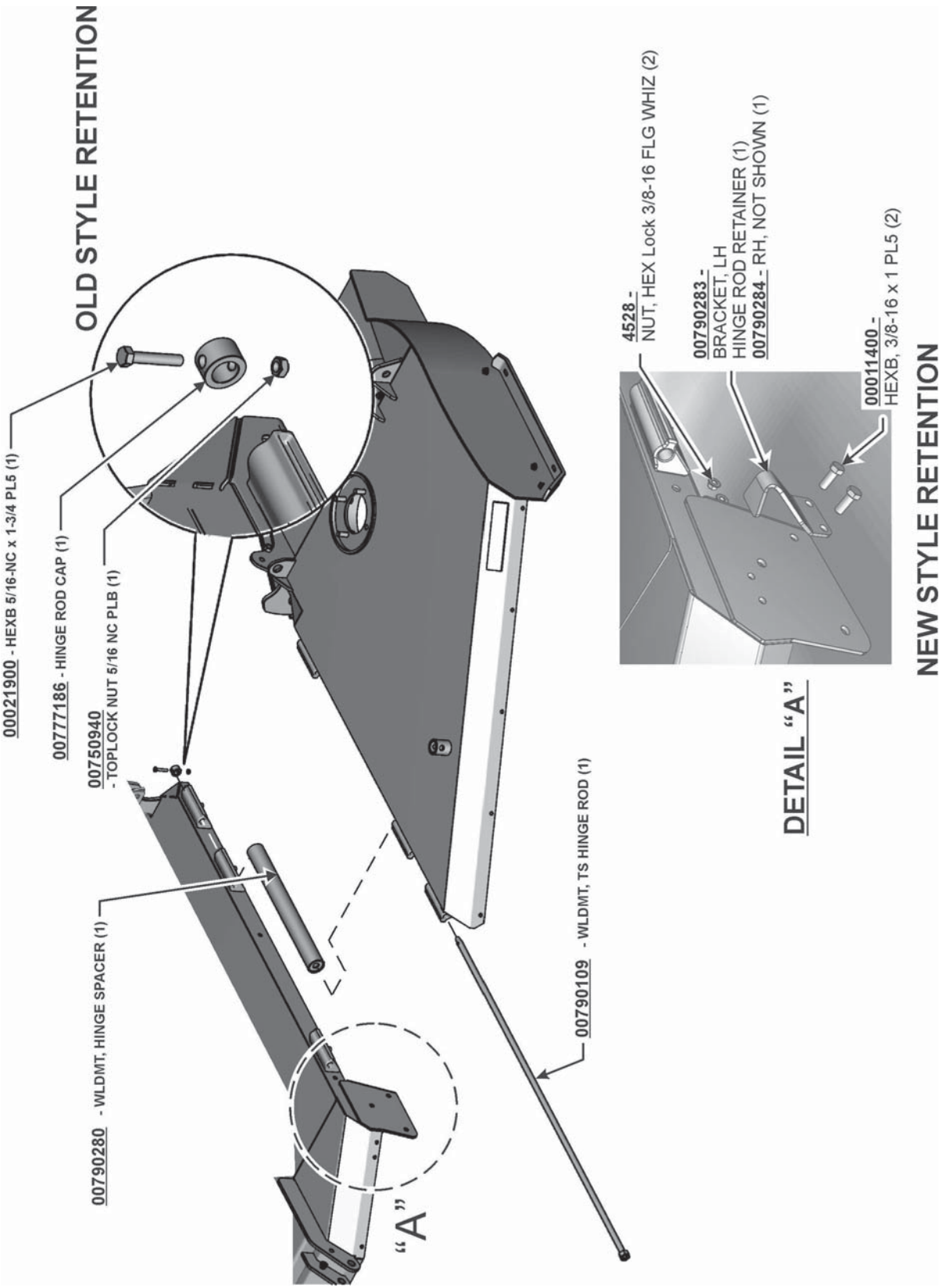
WING CYLINDER ASSEMBLY



RIGHT WING SHOWN

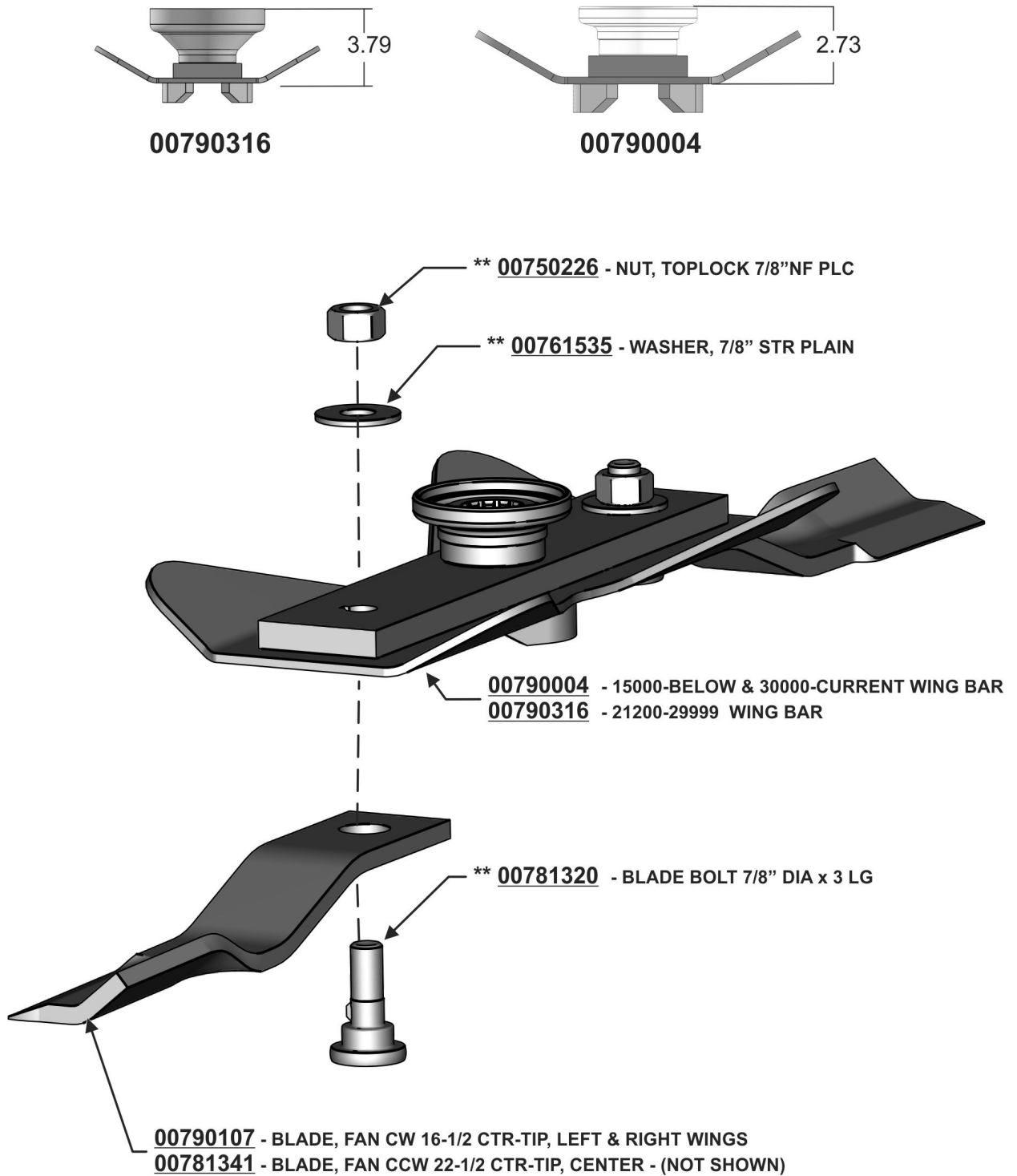


HINGE ASSEMBLY





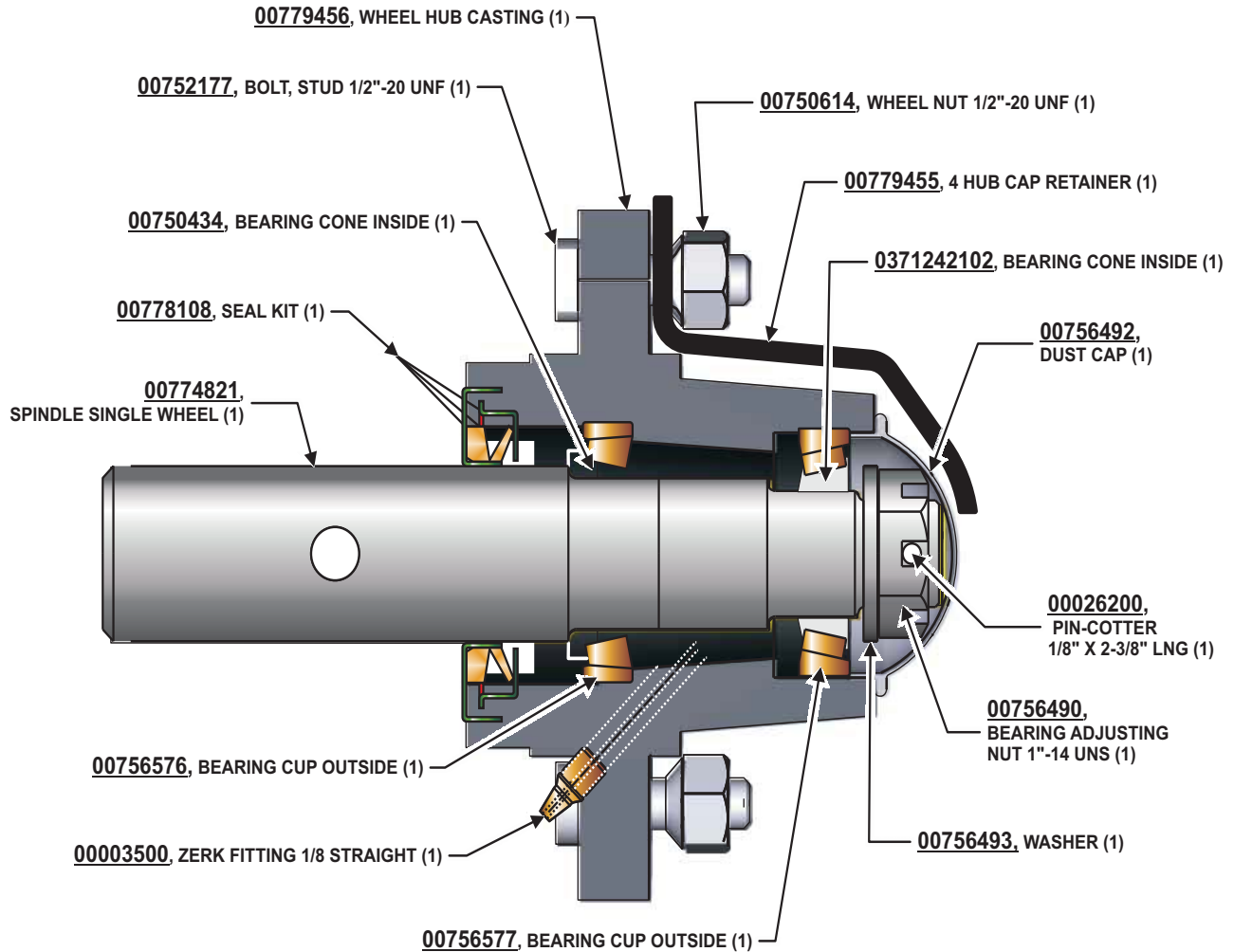
WING BAR ASSEMBLY



**** = 00786548** - KIT, BLADE BOLTS



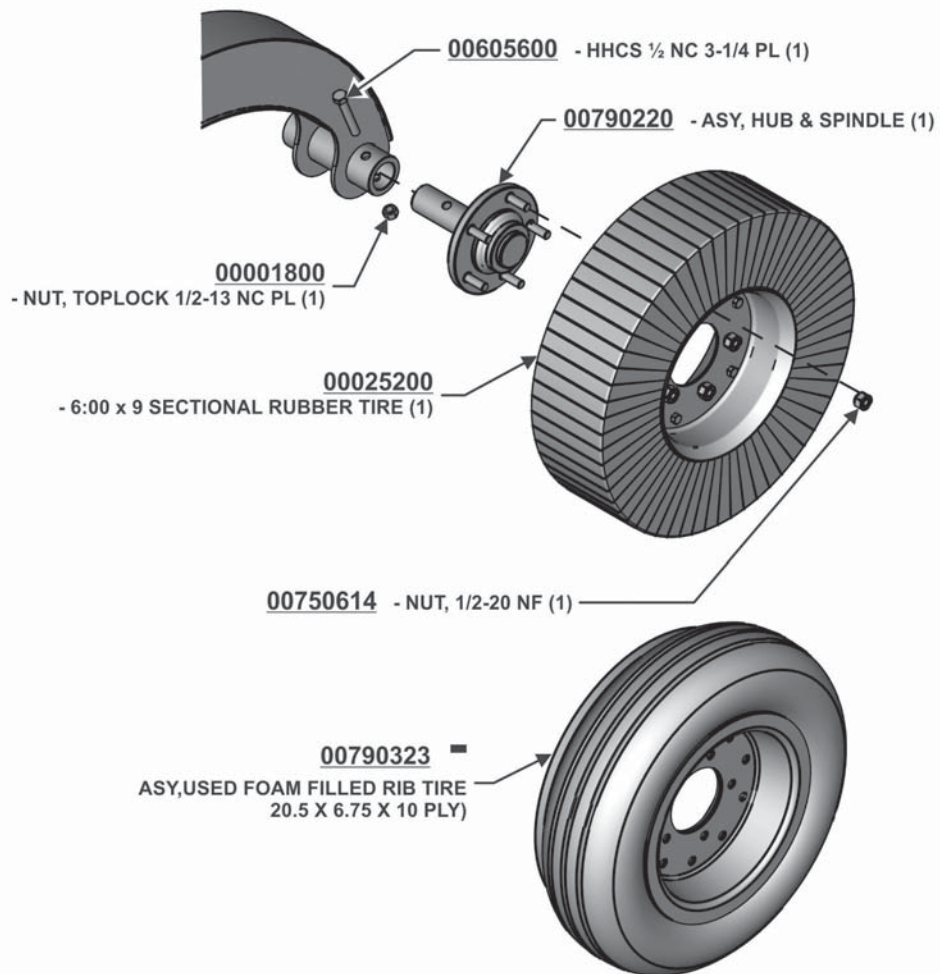
GREASABLE HUB ASSEMBLY - 00775616A



NOTE: If your unit uses this hub the hub will be equipped with zerk fitting 00003500.



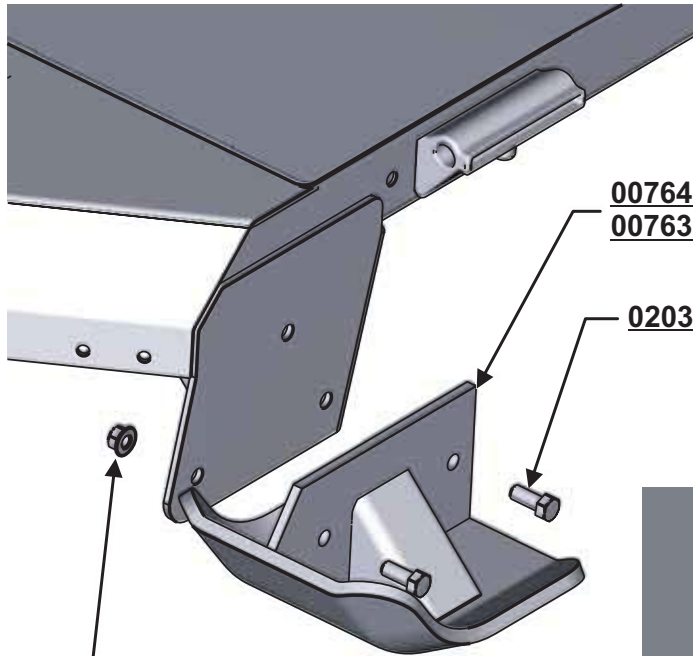
NON-GREASABLE HUB & TIRE ASSEMBLY





SKID SHOE ASSEMBLY

LEFT FRONT



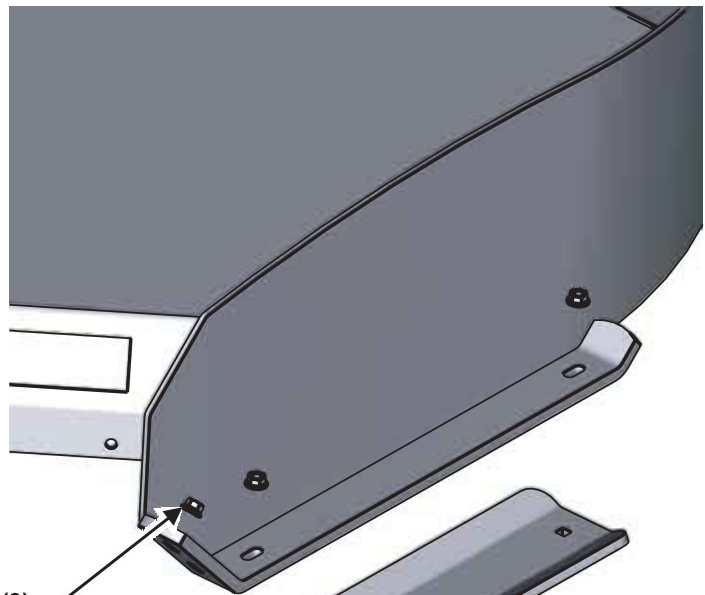
00764020 - SKID SHOE WLDMT, LH (1)

00763996 - SKID SHOE WLDMT, RH (1)

02030700 - HHCS, 1/2-13 NC x 1-1/4 PL5 (2)

4526
- NUT, LOCK FLG WHIZ 1/2-13 NC PL (2)

LEFT SIDE



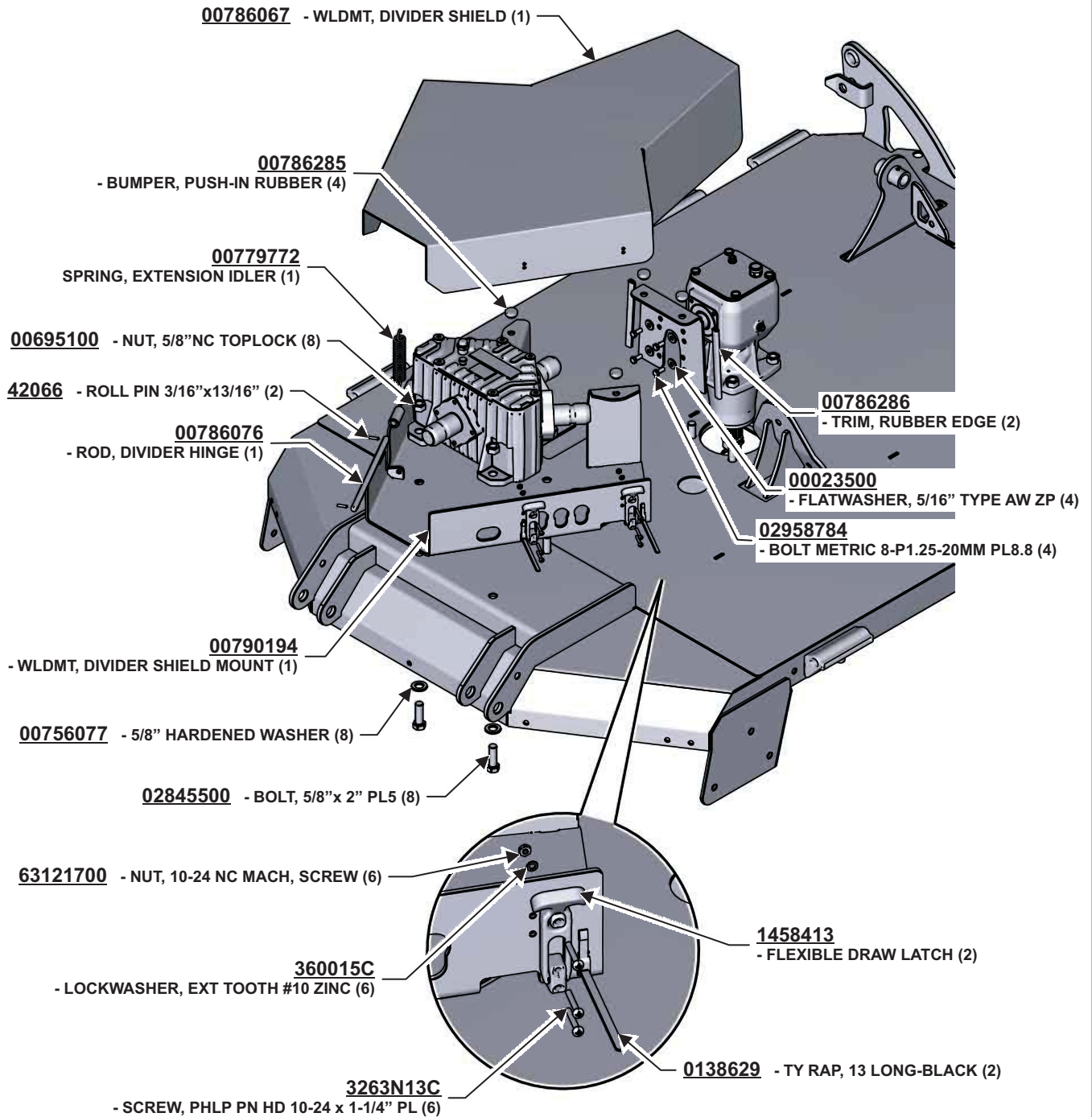
4528 - NUT, LOCK 3/8-16 FLG WHIZ (3)

00790124 - SKID SHOE (1)

2A361612 - BOLT, PLOW 3/8 x 1-1/2 (3)

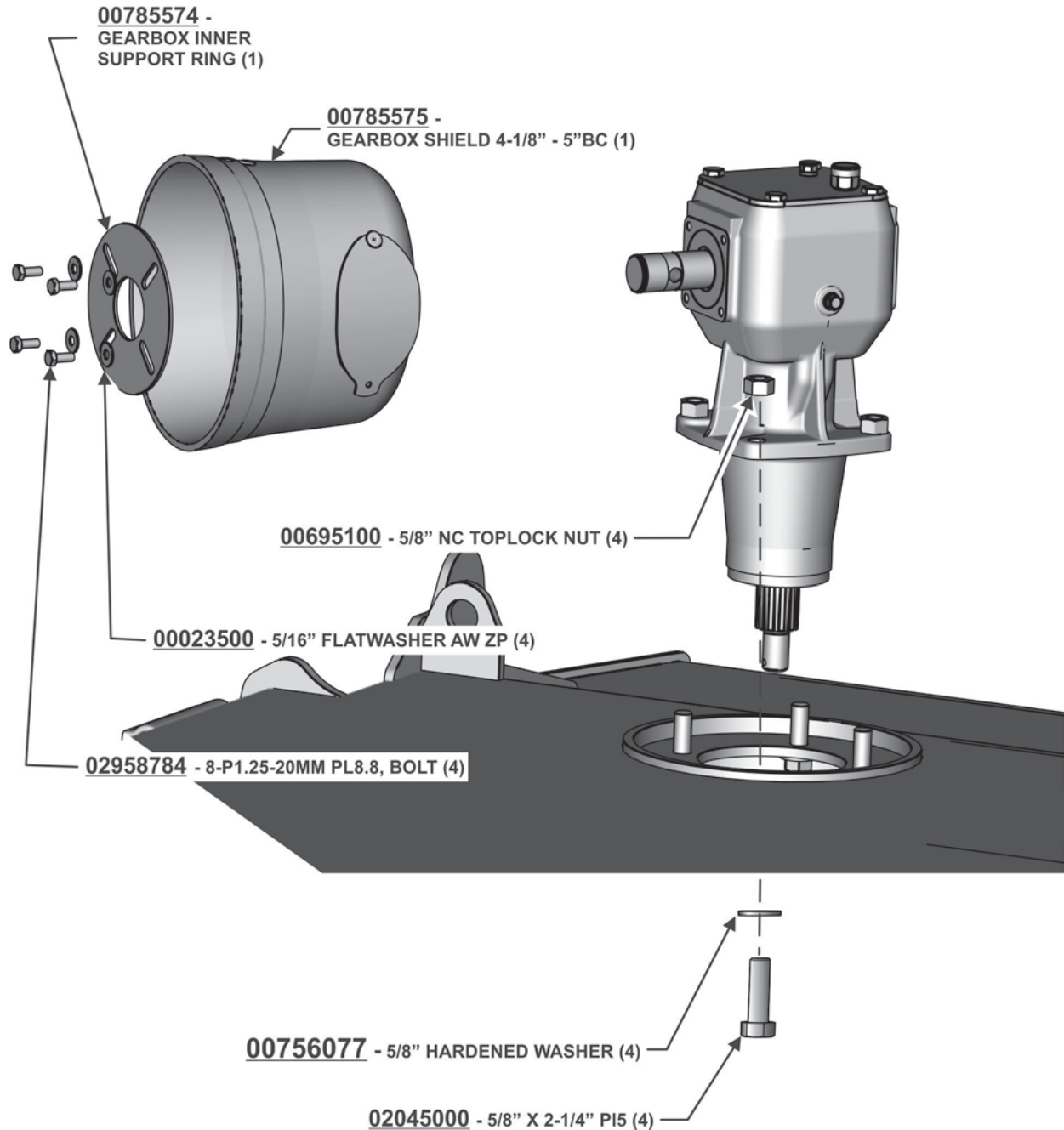


DIVIDER & CENTER SHIELD ASSEMBLY



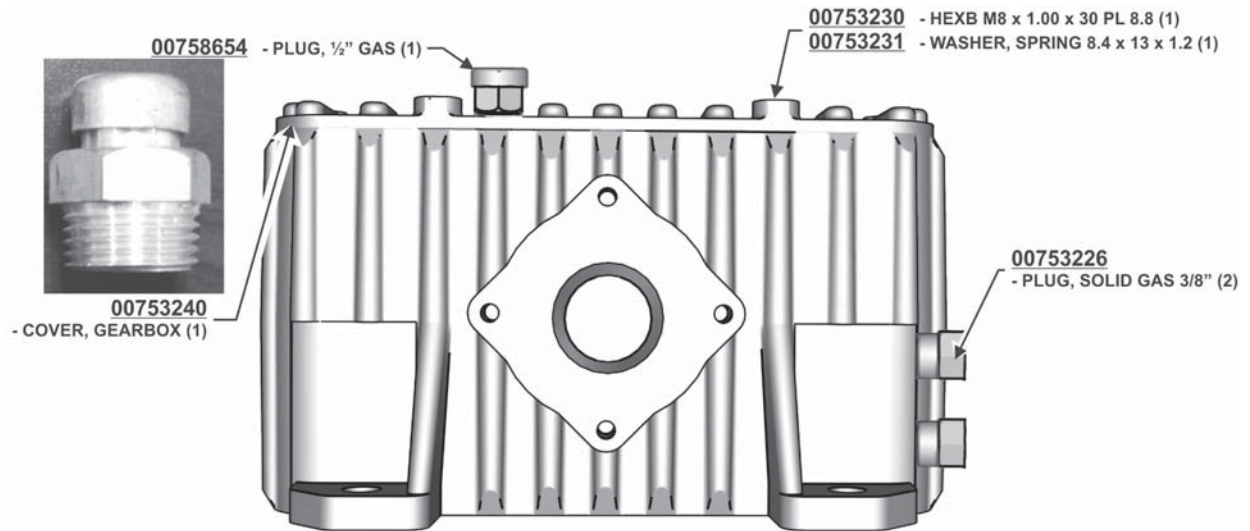


GEARBOX SHIELD ASSEMBLY - WING

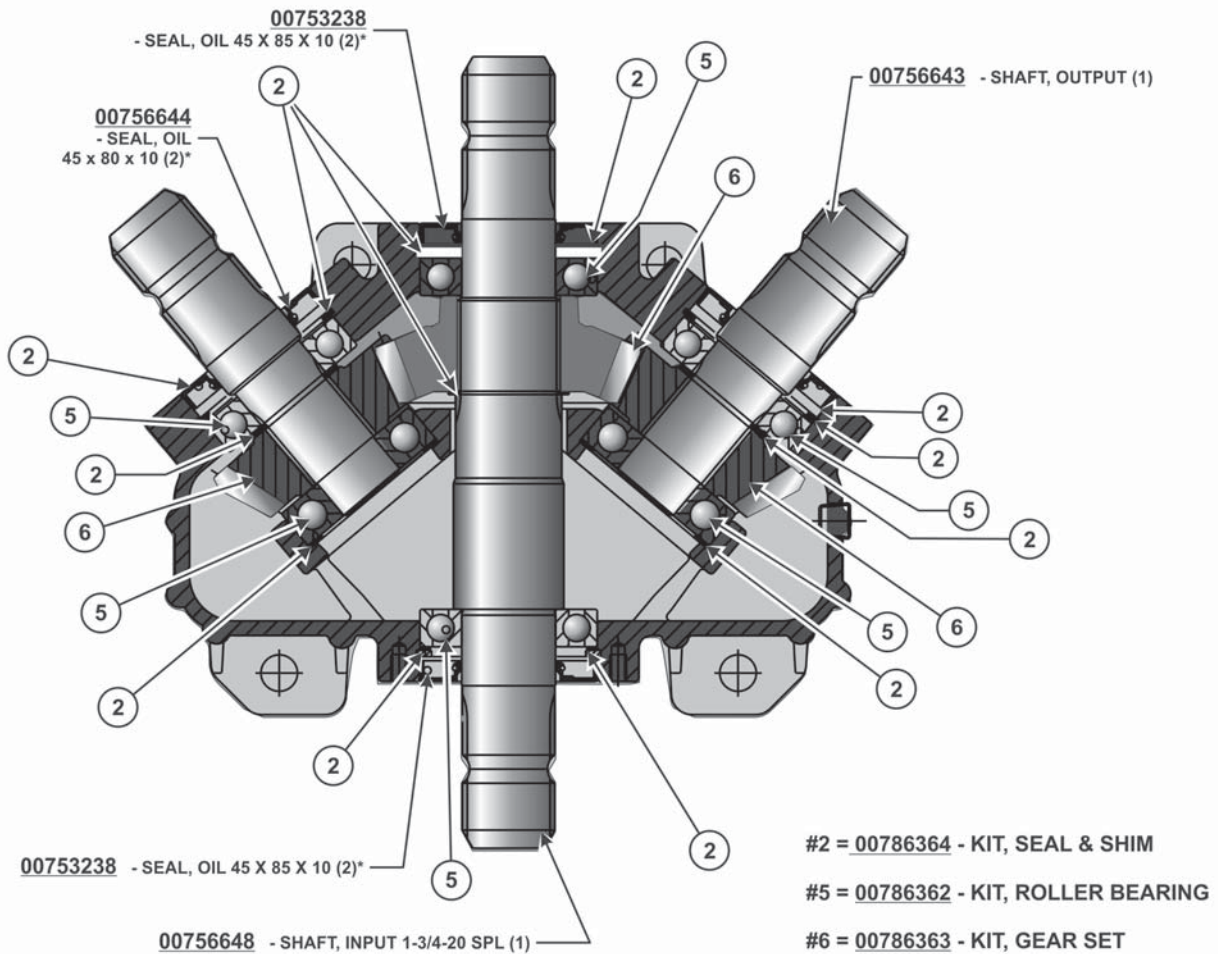




DIVIDER GEARBOX - 00756603A (540 RPM)

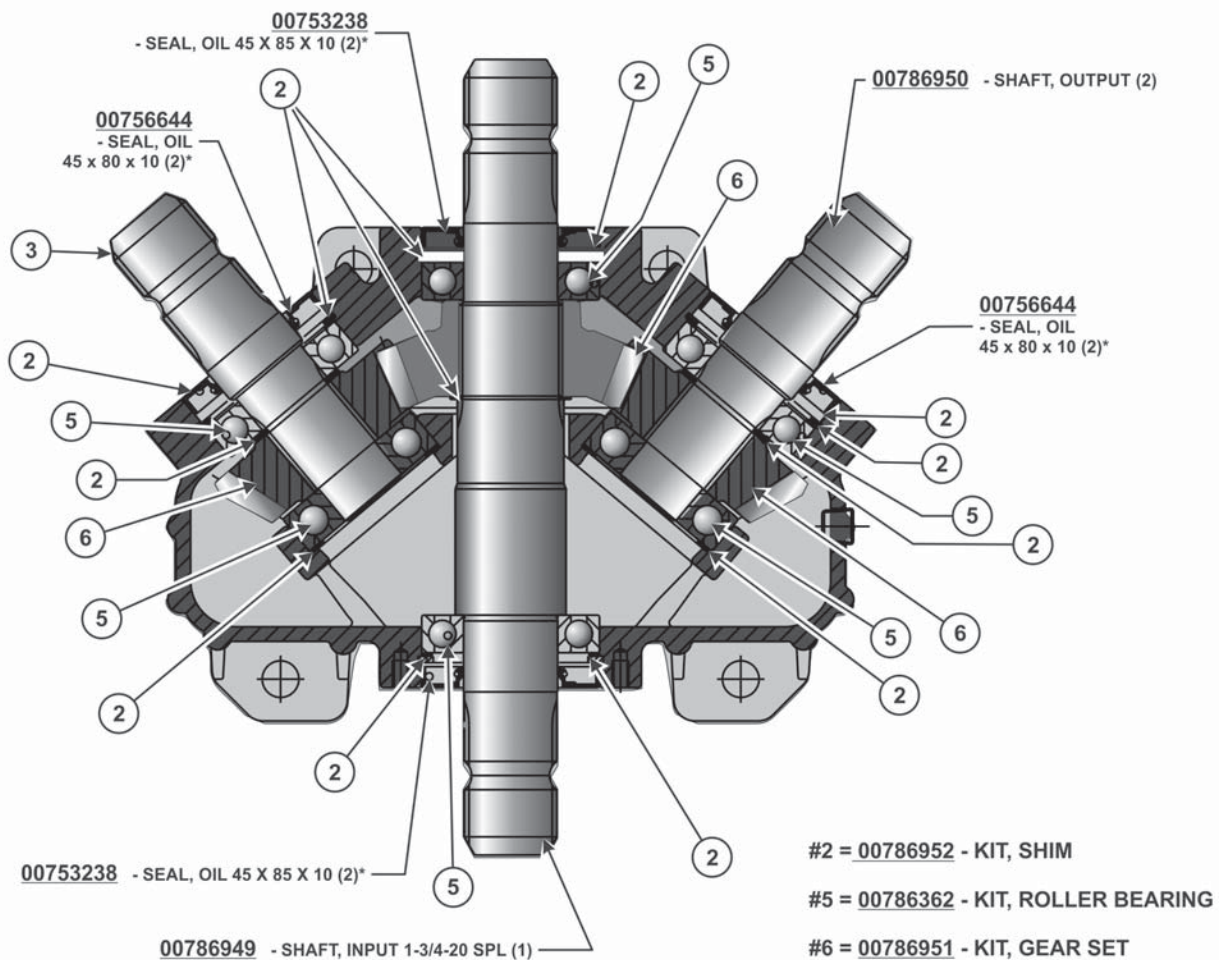
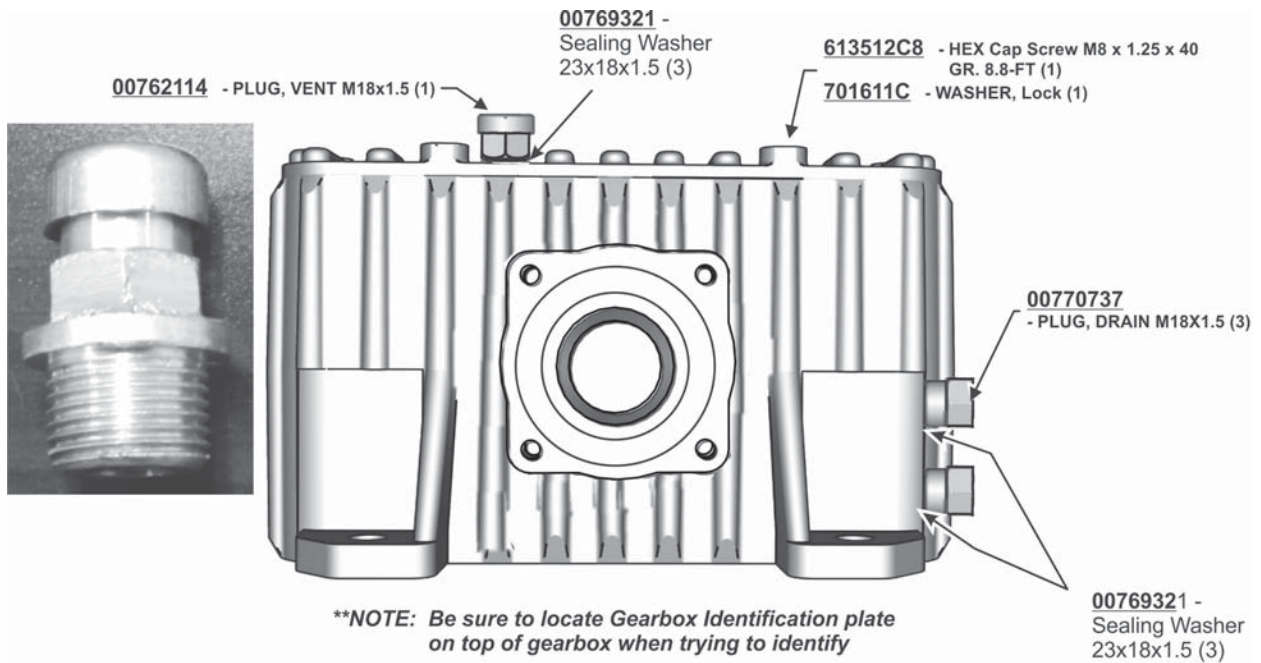


****NOTE:** Be sure to locate Gearbox Identification plate on top of gearbox when trying to identify



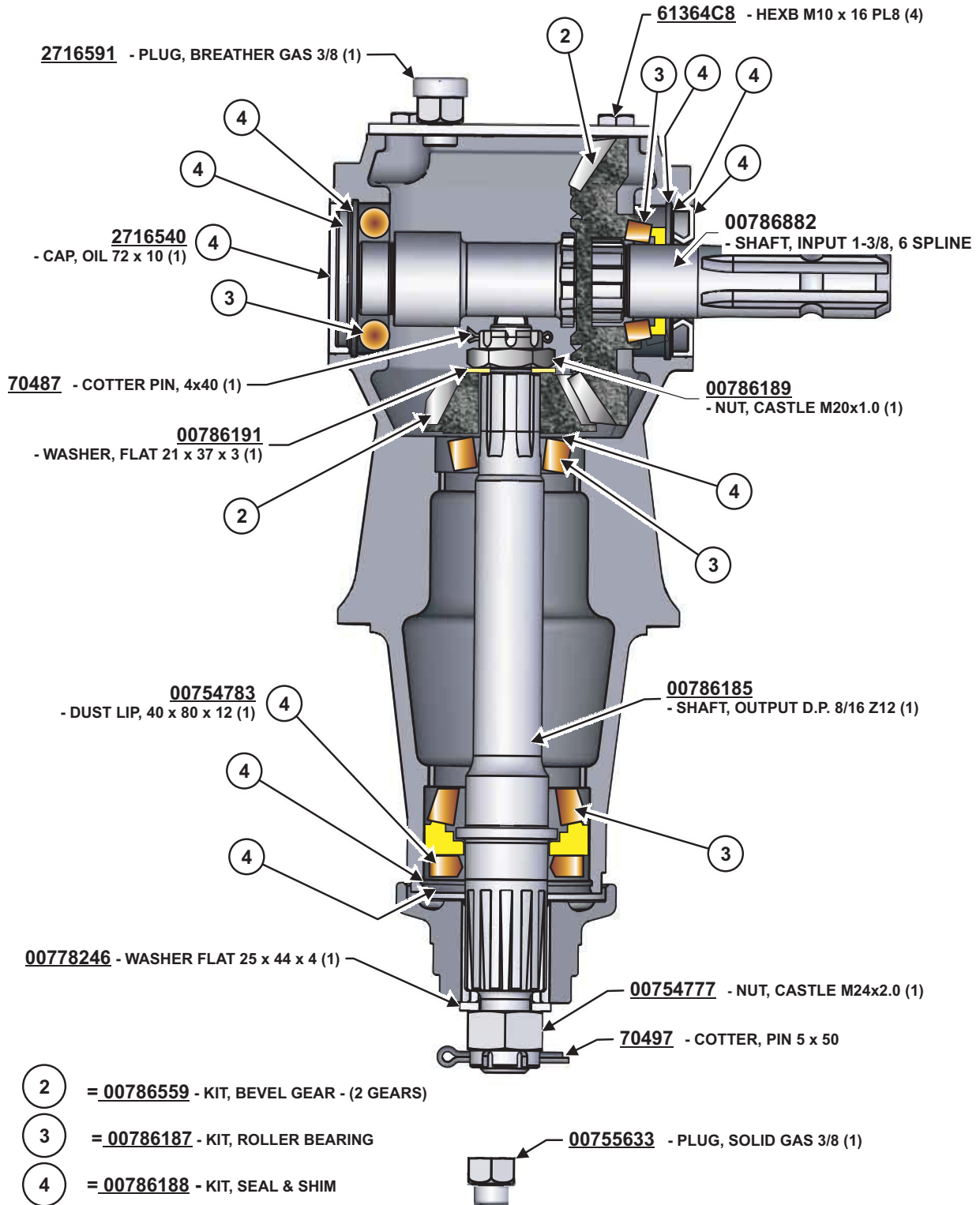


DIVIDER GEARBOX - 00786931 - CURRENT (540 RPM)





GEARBOX ASSEMBLY - 00786781S/N# 15000-BELOW (540 RPM)

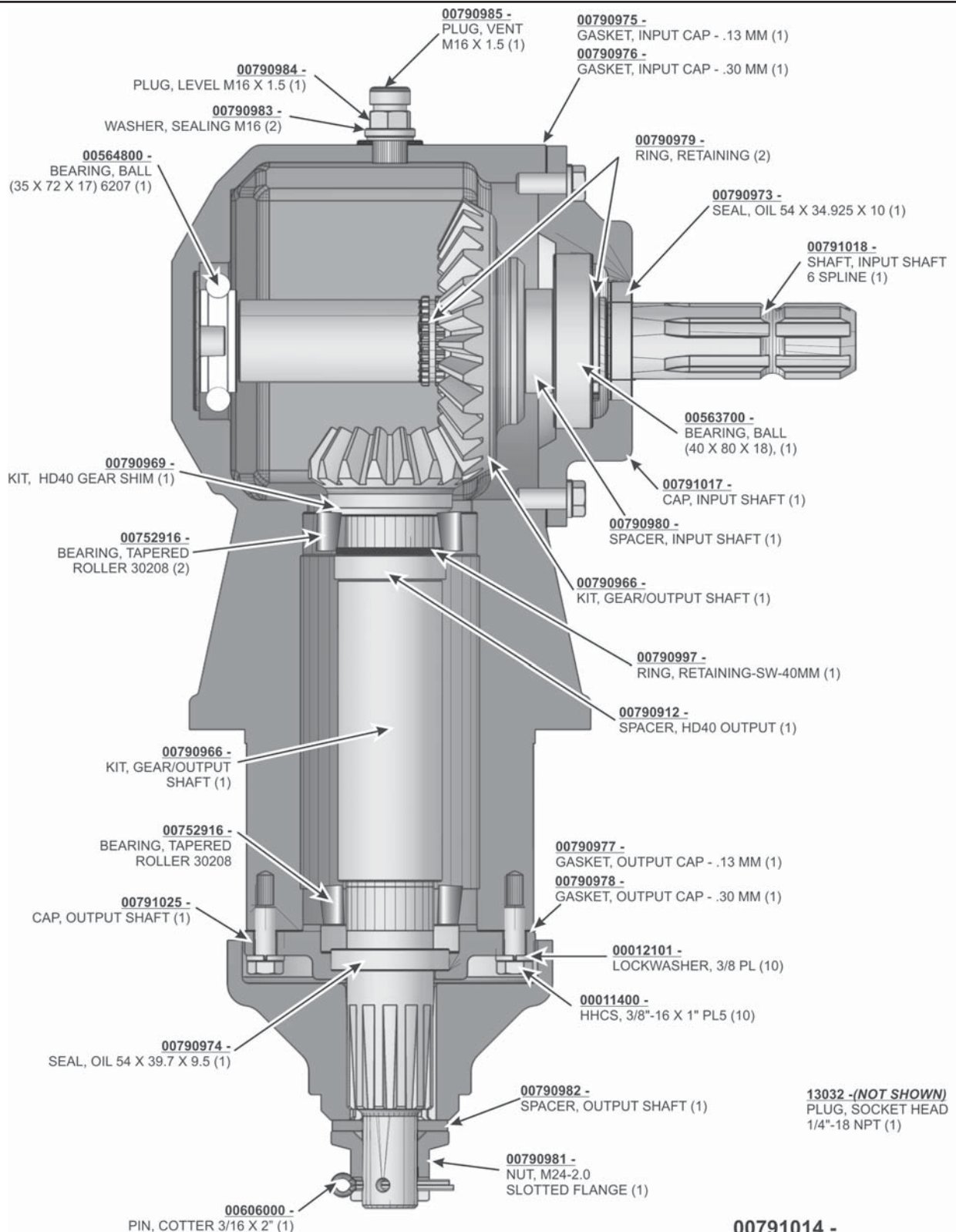


** GEARBOX USED ON LEFT, RIGHT, AND CENTER SECTIONS

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GEARBOX ASSEMBLY - 00791014 S/N# 21200-29999 (540 RPM)

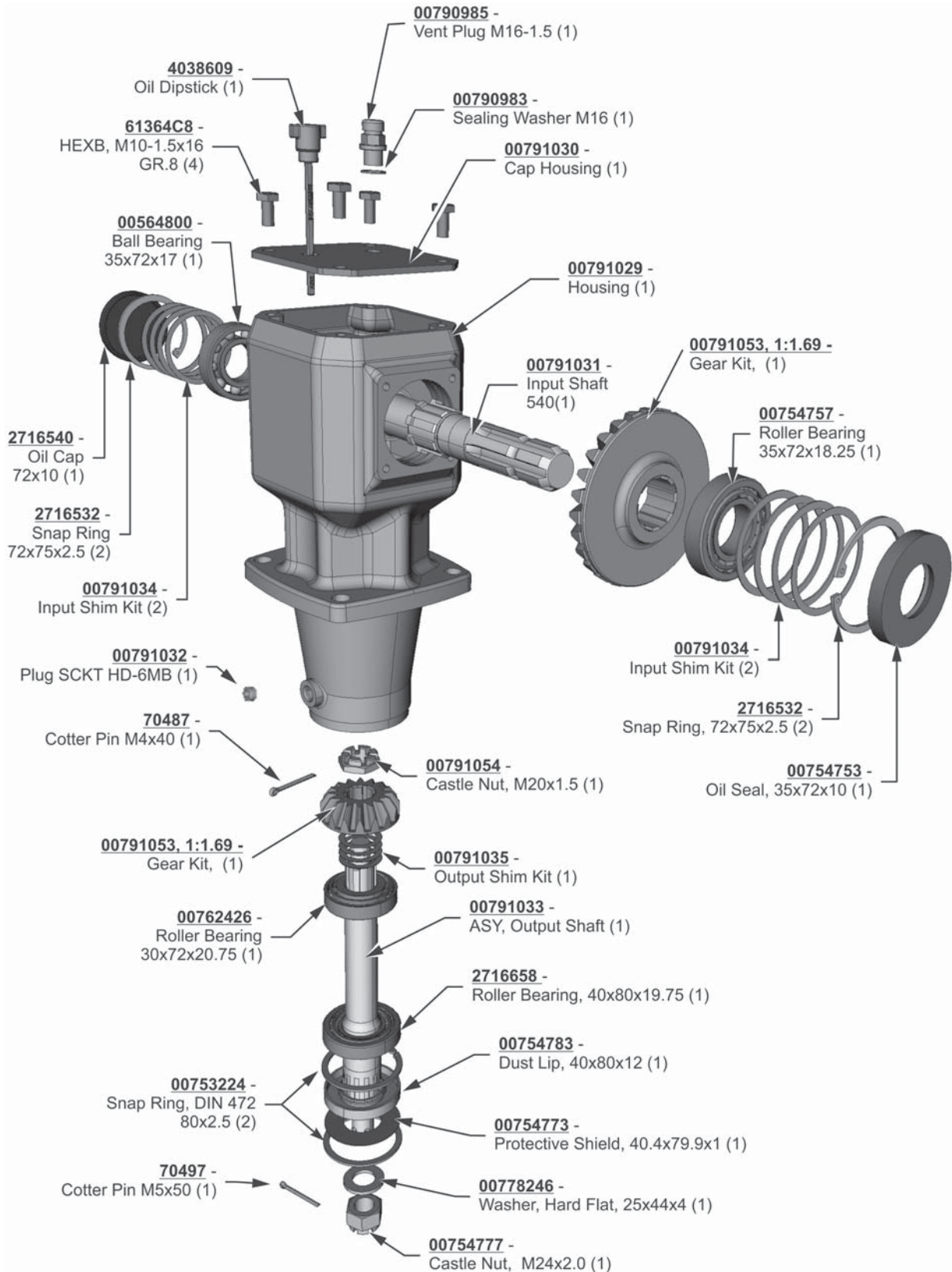


**00791014 -
ASY, HD40 GEARBOX-1:1.69 NO-LUBE
GEAR ADJ TO INPUT SHAFT**

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GEARBOX ASSEMBLY - 00791028 1:1.69 S/N# 30,000-CURRENT 540RPM



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MAIN DRIVELINE ASSEMBLY - 00790197 (PARTS ONLY)



IF YOUR PROFILE IS LEMON IN SHAPE
ORDER FROM THIS PAGE.

PROFILE

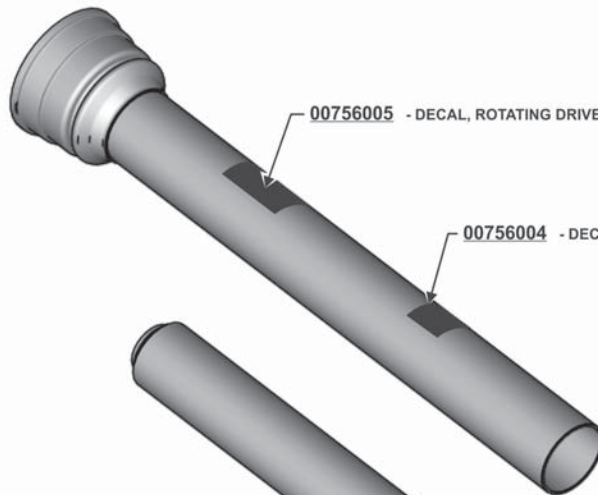


00775353 - YOKE, 1-3/8-6 SPLINE ASGE (1)
00767954 - KIT, YOKE Q.D., - PLASTIC (1)



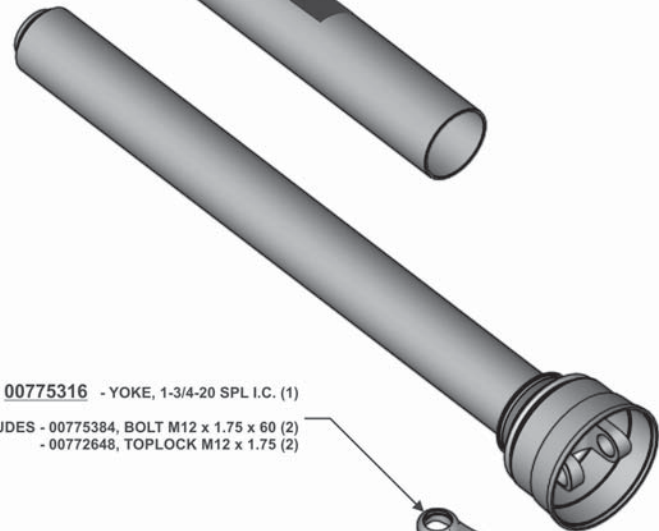
00189700
- KIT, CROSS & BEARING (2)

PARTS ONLY
COMPLETE SHIELD NOT AVAILABLE



00756005 - DECAL, ROTATING DRIVELINE (1)

00756004 - DECAL, SHIELD MISSING (1)



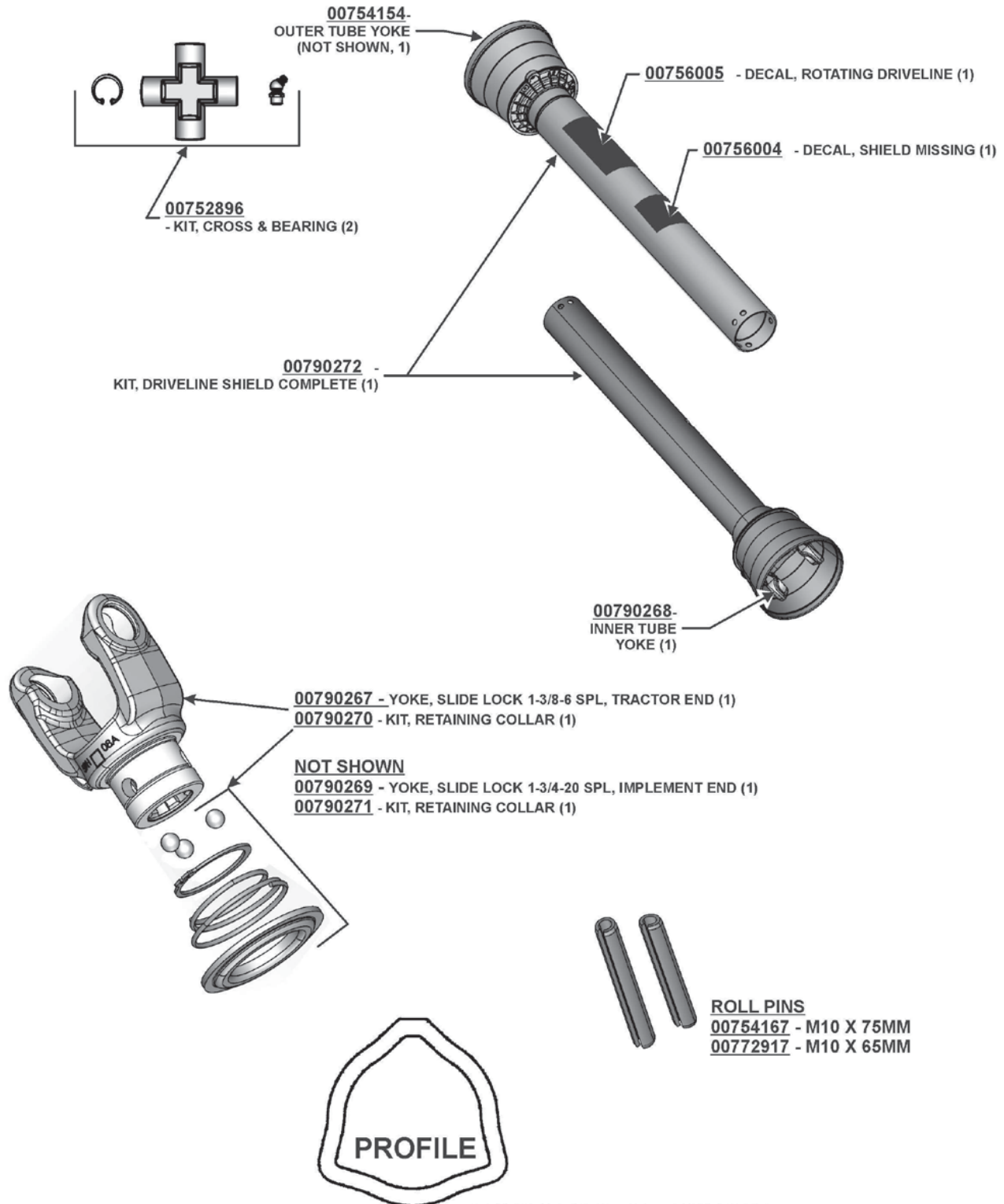
00775316 - YOKE, 1-3/4-20 SPL I.C. (1)

INCLUDES - 00775384, BOLT M12 x 1.75 x 60 (2)
- 00772648, TOPLOCK M12 x 1.75 (2)





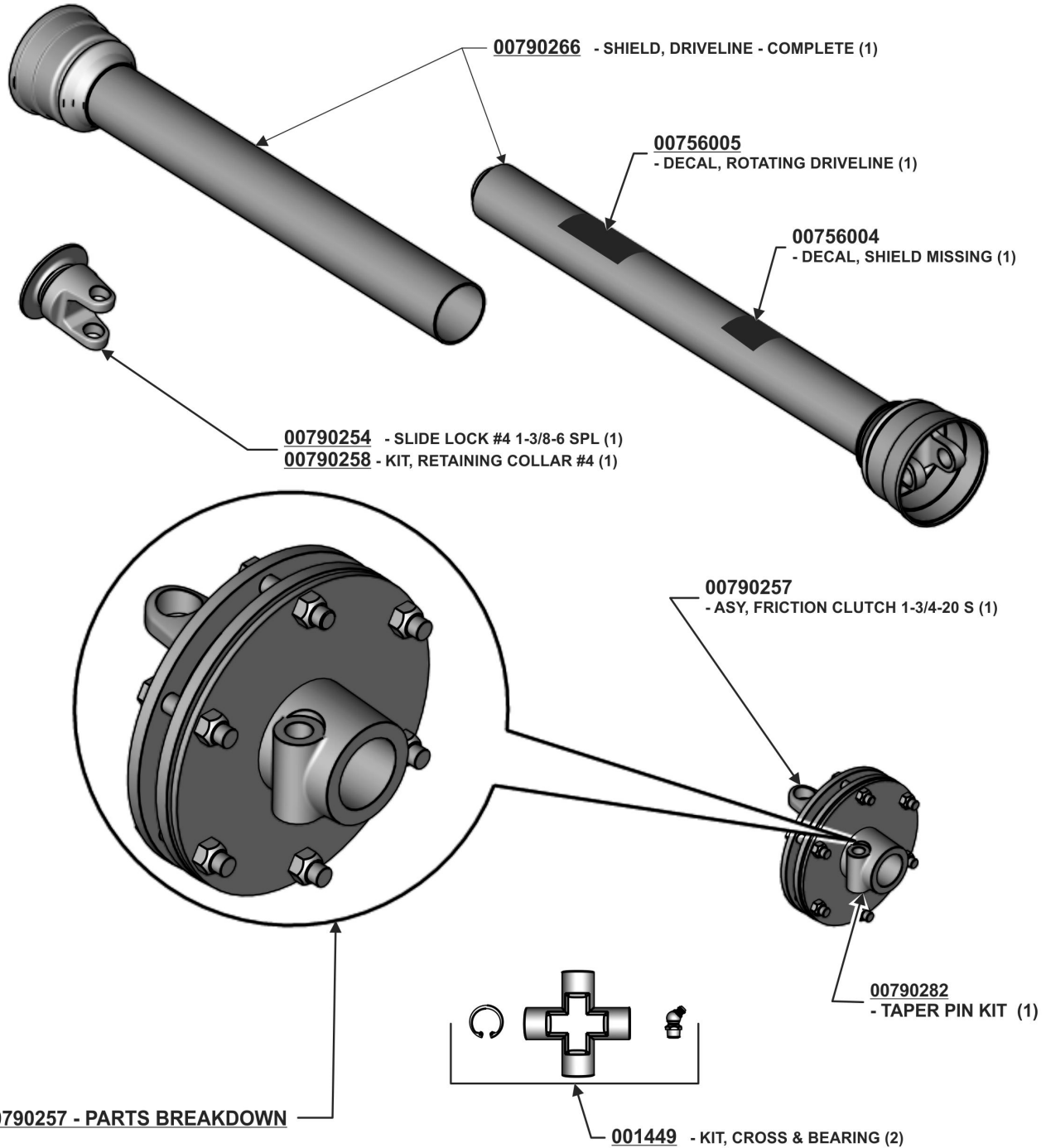
MAIN DRIVELINE ASSEMBLY - 00790233 - (CURRENT)



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IN SHAPE ORDER FROM THIS PAGE.



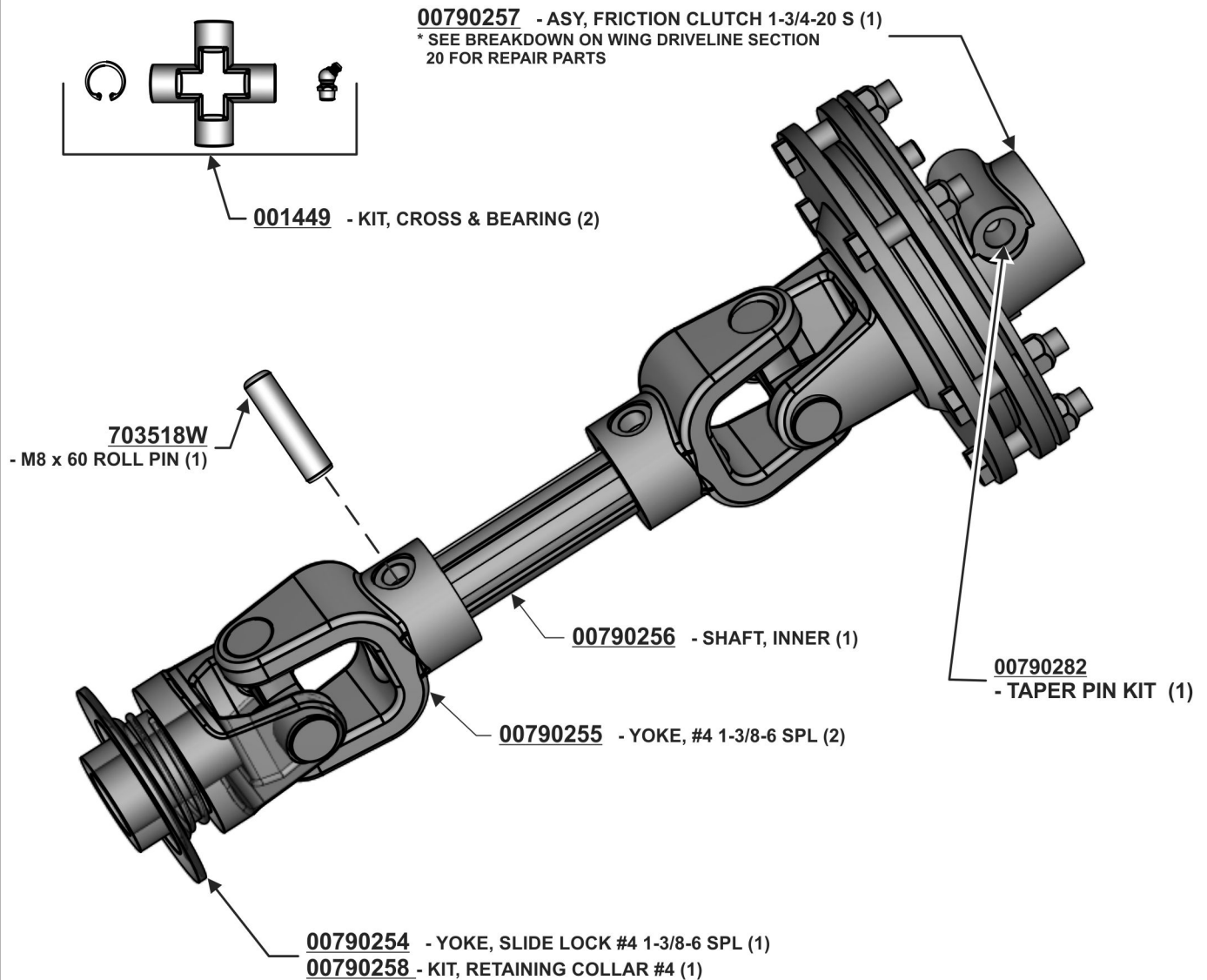
WING DRIVELINE ASSEMBLY and SLIP CLUTCH - 00790231



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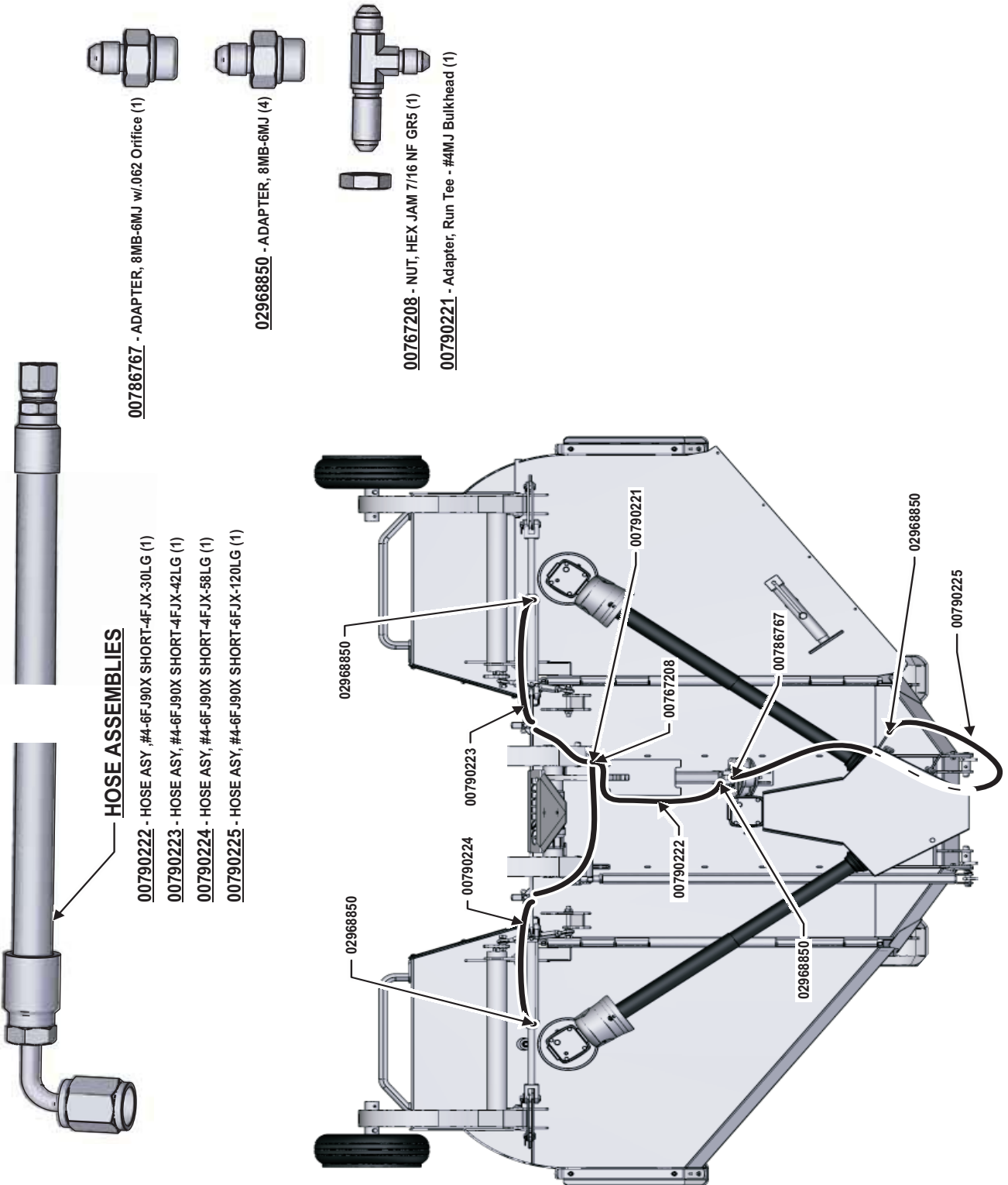


INTERMEDIATE DRIVELINE ASSEMBLY - 00790232



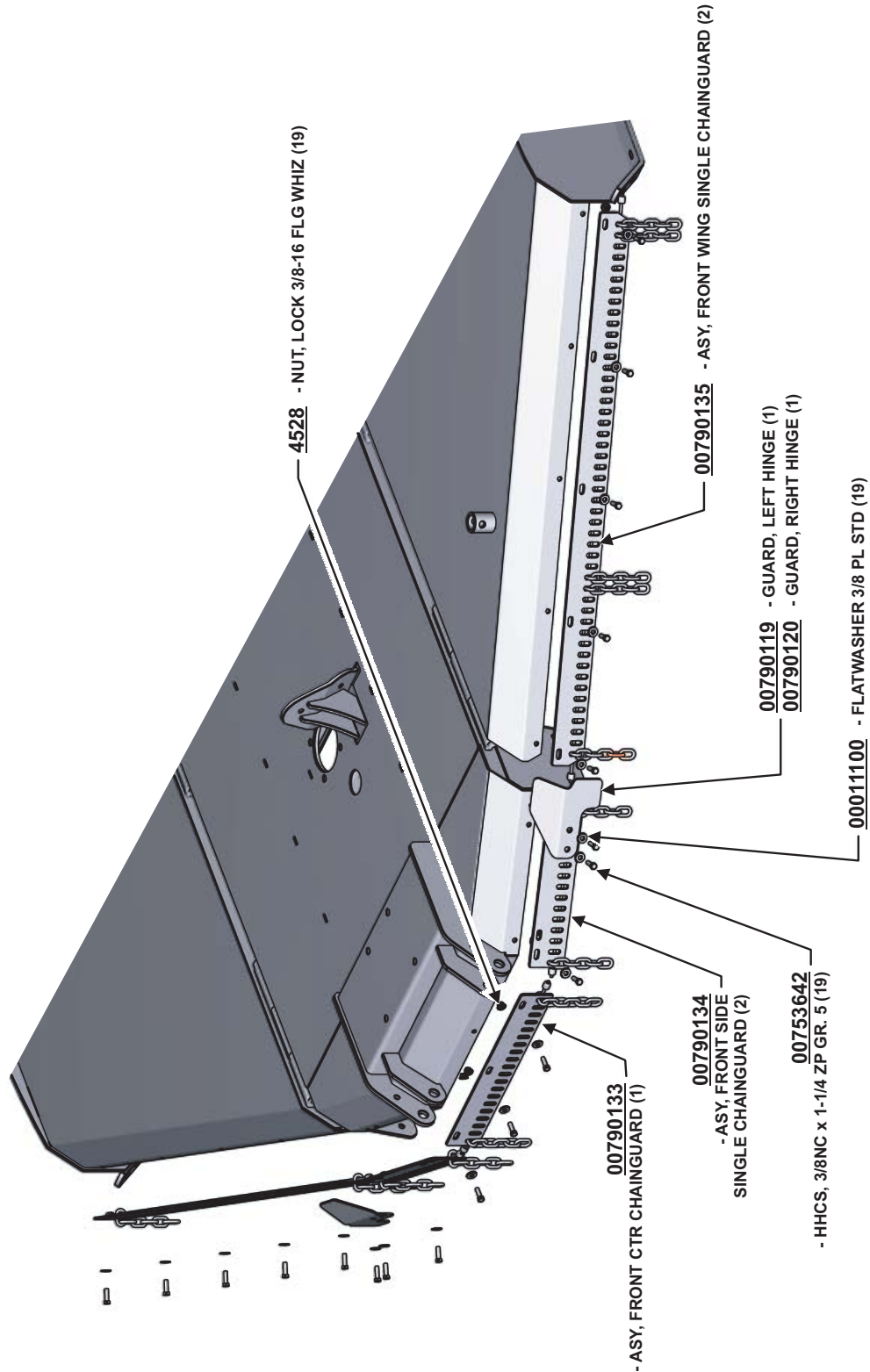


HOSE SCHEMATIC





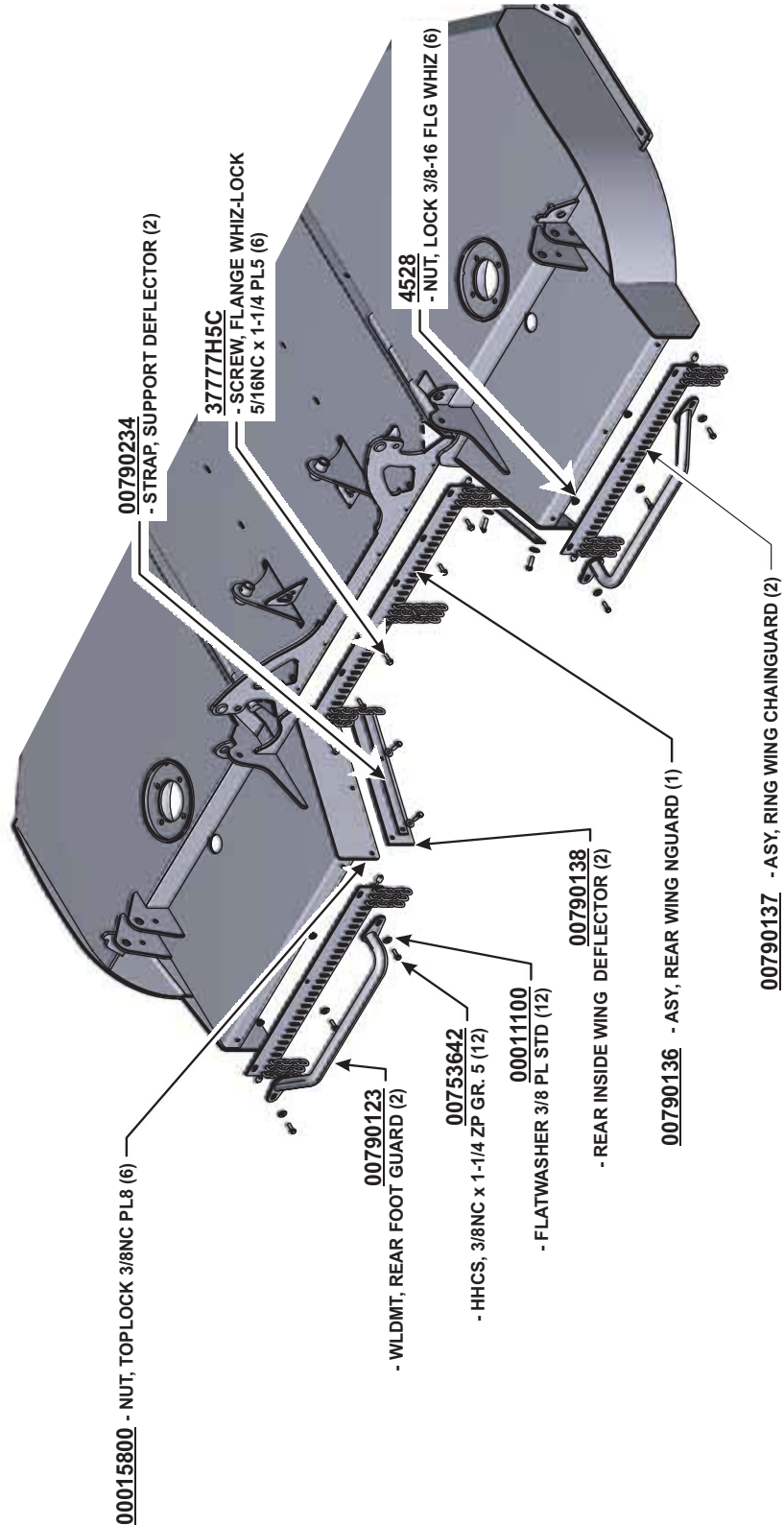
CHAINGUARD ASSEMBLY - FRONT



TS12

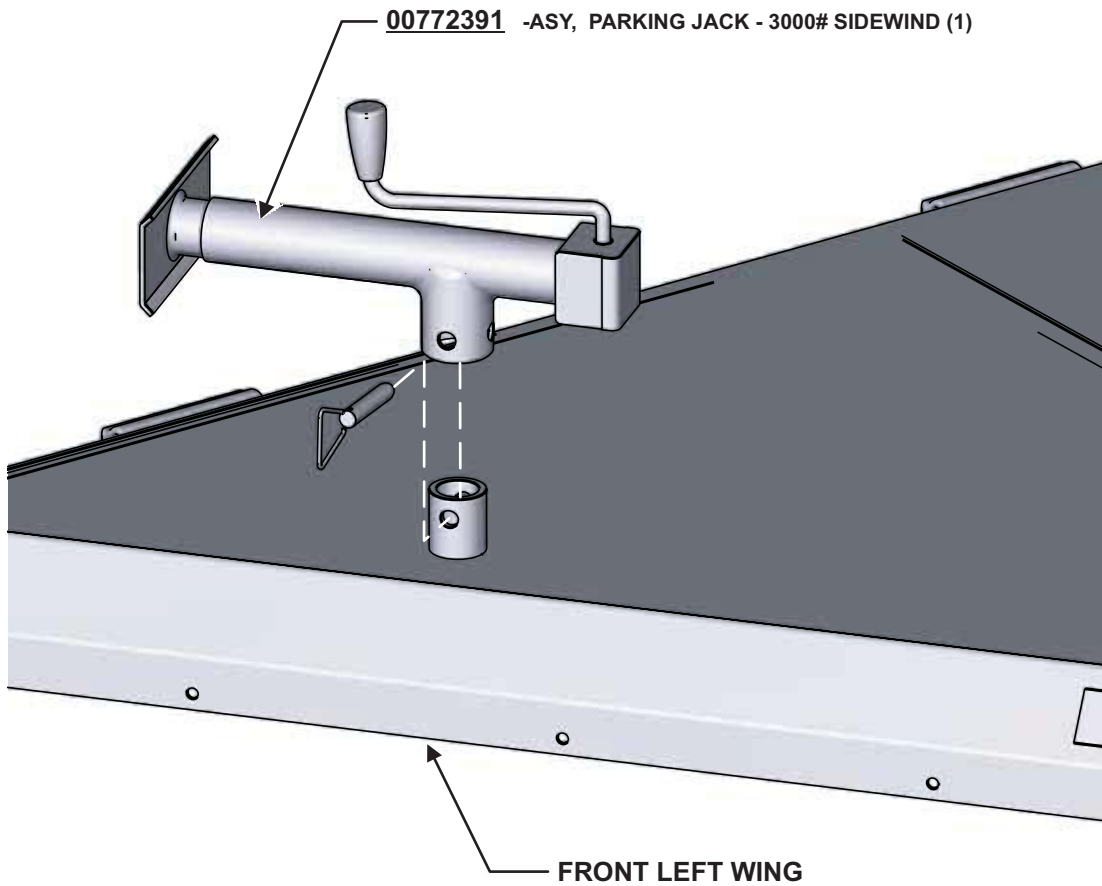


CHAINGUARD ASSEMBLY - REAR





JACK ASSEMBLY



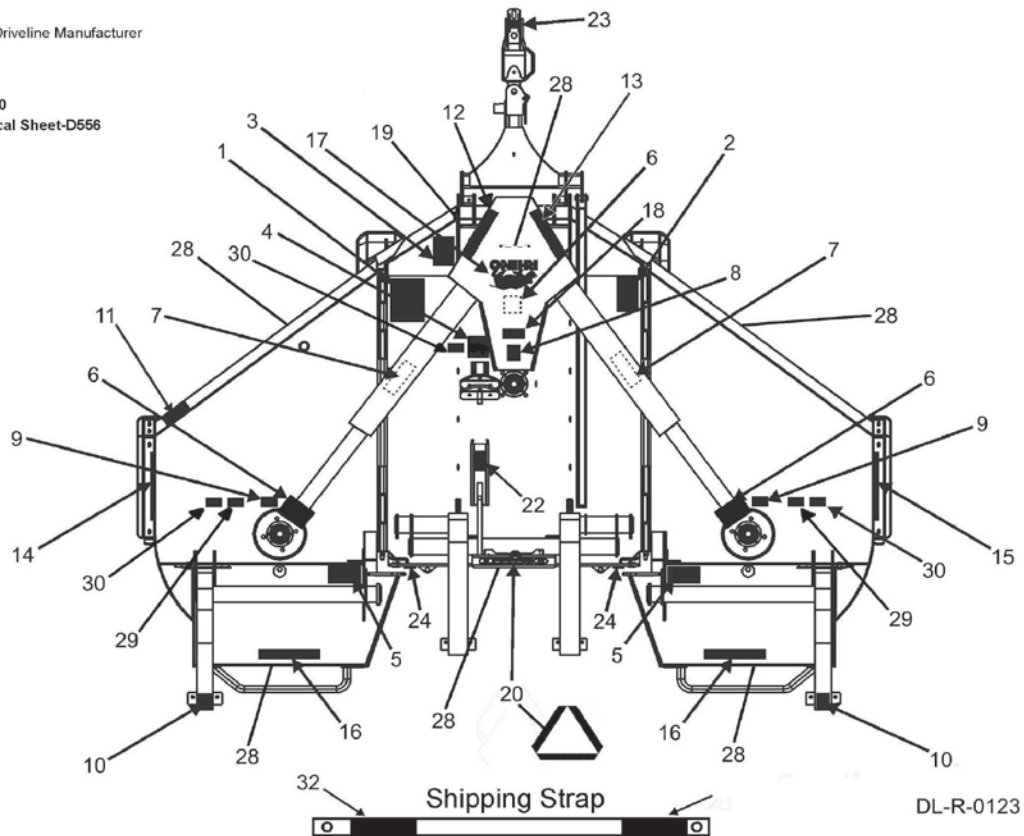


DECAL LOCATION

ITEM	PART NO.	QTY	TYPE	DESCRIPTION
1.	D389	1	DECAL	Multi Hazard
2.	D390	1	DECAL	Pull Type Unit Hazards
3.	D388	1	DECAL	Driveline Hazards
4.	D137	1	WARNING	CCW Blade Attachment
5.	00753840	2	DANGER	Wing Lowering Safety
6.	00756004	3	DANGER	Shield Missing
7.	00756005	2*	DANGER	Rotating Driveline
8.	00771283	1	WARRANTY	5 - Year
9.	D138	2	WARNING	CW Blade Attachment
10.	1458392	2	REFLECT	Red Reflector
11.	1458393	1	REFLECT	Amber Reflector
12.	00790209	1	LOGO/NAME	TS12
13.	00790210	1	LOGO/NAME	TS12
14.	00790207	1	NAME	TS12 - Large
15.	00790208	1	NAME	TS12 - Large
16.	00790211	2	NAME	STEALTH
17.	00790212	1	NAME	RHINO Name Logo
18.	00760657	1	IMPORTANT	Genuine Rhino Parts
19.	nfs	1	SERIAL PLATE	Serial Number Plate
20.	03200347	1	REFLECT	SMV
21.	D518	1	WARNING	Jack Positioning
22.	D520	1	IMPORTANT	Transport Latch
23.	00790274	1	IMPORTANT	Tongue Drawbar Connection
24.	D539	2	DANGER	Crushing Hazard - Lock
25.	00776031	1	INSTRUCT	Canister, Operators Manual
26.	00780878	3	-----	Rivet
27.	00790219C	1	-----	Operator's Manual (inside Canister)
28.	D614	6	DANGER	Thrown Object Shield Missing
29.	D615	2	WARNING	Crushing Hazard
30.	D395	3	WARNING	Torque Blade Bolt 300 lbs.
31.	D585	1	INSTRUCT	Lube Chart
32.	D519	2	DANGER	Crushing Hazard - Falling

*Furnished by Driveline Manufacturer

Decal Sheets
Flex Wing-D420
TS12 Logo Decal Sheet-D556

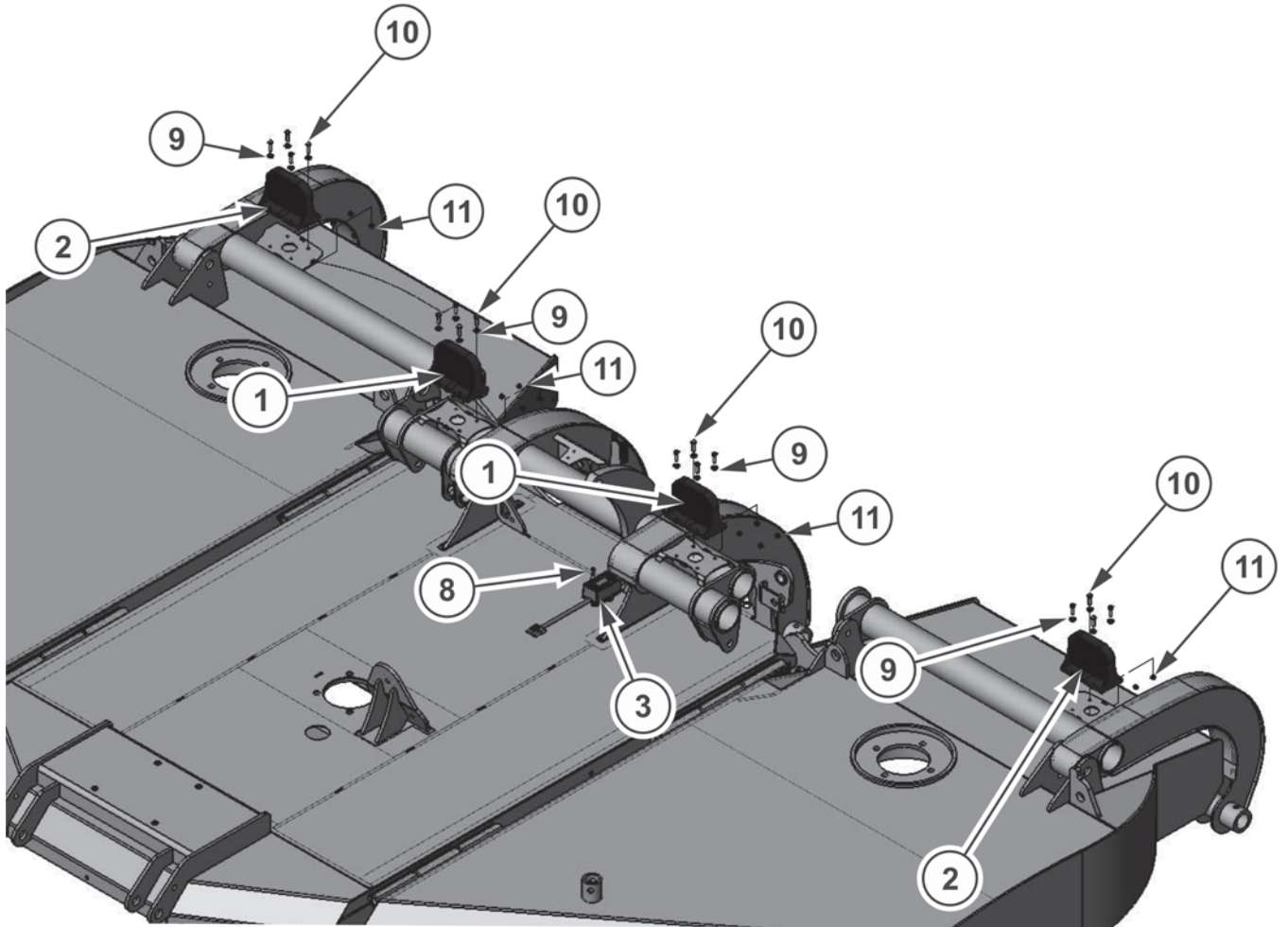


DL-R-0123

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LIGHT KIT



RED & AMBER LENSES FACE REARWARD
WIRE HARNESSSES NOT SHOWN

ITEM	PART NO.	QTY.	DESCRIPTION
0	00790329	1	KIT, LIGHT
1	00791723	2	LIGHT, SINGLE LED - RED/BLACK
2	00791722	2	LIGHT, SINGLE LED - AMBER/BLACK
3	00791726	1	MODULE, AG ENHANCE FLASHER
4	00791724	1	HARNESS, RH WISHBONE WIRING
5	00791725	1	HARNESS, LH WISHBONE WIRING
6	00791727	1	HARNESS, MAIN WIRING
7	6B1700	1	BOLT BOX
8	00790328	2	SCREW, #10-16 X 3/4 SELF TAPPING
9	00024100	16	FLAT WASHER STD 1/4 PL
10	10058000	16	HHCS 1/4 NC 1 PL5
11	02959924	16	NUT, LOCK TLM 1/4-20 NC PLB

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SERVIS-RHINO

LIMITED WARRANTY

1. LIMITED WARRANTIES

- 1.01. Servis-Rhino warrants for one year from the purchase date to the original non-commercial, governmental, or municipal purchaser ("Purchaser") and warrants for six months to the original commercial or industrial purchaser ("Purchaser") that the goods purchased are free from defects in material or workmanship.
- 1.02. Manufacturer will replace for the Purchaser any part or parts found, upon examination at one of its factories, to be defective under normal use and service due to defects in material or workmanship.
- 1.03. This limited warranty does not apply to any part of the goods which has been subjected to improper or abnormal use, negligence, alteration, modification, or accident, damaged due to lack of maintenance or use of wrong fuel, oil, or lubricants, or which has served its normal life. This limited warranty does not apply to any part of any internal combustion engine, or expendable items such as blades, shields, guards, or pneumatic tires except as specifically found in your Operator's Manual.
- 1.04. Except as provided herein, no employee, agent, Dealer, or other person is authorized to give any warranties of any nature on behalf of Manufacturer.

2. REMEDIES AND PROCEDURES.

- 2.01. This limited warranty is not effective unless the Purchaser returns the Registration and Warranty Form to Manufacturer within 30 days of purchase.
- 2.02. Purchaser claims must be made in writing to the Authorized Dealer ("Dealer") from whom Purchaser purchased the goods or an approved Authorized Dealer ("Dealer") within 30 days after Purchaser learns of the facts on which the claim is based.
- 2.03. Purchaser is responsible for returning the goods in question to the Dealer.
- 2.04. If after examining the goods and/or parts in question, Manufacturer finds them to be defective under normal use and service due to defects in material or workmanship, Manufacturer will:
 - (a) Repair or replace the defective goods or part(s) or
 - (b) Reimburse Purchaser for the cost of the part(s) and reasonable labor charges (as determined by Manufacturer) if Purchaser paid for the repair and/or replacement prior to the final determination of applicability of the warranty by Manufacturer.The choice of remedy shall belong to Manufacturer.
- 2.05. Purchaser is responsible for any labor charges exceeding a reasonable amount as determined by Manufacturer and for returning the goods to the Dealer, whether or not the claim is approved. Purchaser is responsible for the transportation cost for the goods or part(s) from the Dealer to the designated factory.

3. LIMITATION OF LIABILITY.

- 3.01. MANUFACTURER DISCLAIMS ANY EXPRESS (EXCEPT AS SET FORTH HEREIN) AND IMPLIED WARRANTIES WITH RESPECT TO THE GOODS INCLUDING, BUT NOT LIMITED TO, MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.
- 3.02. MANUFACTURER MAKES NO WARRANTY AS TO THE DESIGN, CAPABILITY, CAPACITY, OR SUITABILITY FOR USE OF THE GOODS.
- 3.03. EXCEPT AS PROVIDED HEREIN, MANUFACTURER SHALL HAVE NO LIABILITY OR RESPONSIBILITY TO PURCHASER OR ANY OTHER PERSON OR ENTITY WITH RESPECT TO ANY LIABILITY, LOSS, OR DAMAGE CAUSED OR ALLEGED TO BE CAUSED DIRECTLY OR INDIRECTLY BY THE GOODS INCLUDING, BUT NOT LIMITED TO, ANY INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES RESULTING FROM THE USE OR OPERATION OF THE GOODS OR ANY BREACH OF THIS WARRANTY. NOTWITHSTANDING THE ABOVE LIMITATIONS AND WARRANTIES, MANUFACTURER'S LIABILITY HEREUNDER FOR DAMAGES INCURRED BY PURCHASER OR OTHERS SHALL NOT EXCEED THE PRICE OF THE GOODS.
- 3.04. NO ACTION ARISING OUT OF ANY CLAIMED BREACH OF THIS WARRANTY OR TRANSACTIONS UNDER THIS WARRANTY MAY BE BROUGHT MORE THAN TWO (2) YEARS AFTER THE CAUSE OF ACTION HAS OCCURRED.

4. MISCELLANEOUS.

- 4.01. Proper Venue for any lawsuits arising from or related to this limited warranty shall be only in Guadalupe County, Texas.
- 4.02. Manufacturer may waive compliance with any of the terms of this limited warranty, but no waiver of any terms shall be deemed to be a waiver of any other term.
- 4.03. If any provision of this limited warranty shall violate any applicable law and is held to be unenforceable, then the invalidity of such provision shall not invalidate any other provisions herein.
- 4.04. Applicable law may provide rights and benefits to purchaser in addition to those provided herein.

KEEP FOR YOUR RECORDS

ATTENTION: Purchaser should fill in the blanks below for his reference when buying repair parts and/or for proper machine identification when applying for warranty.

Servis-Rhino Implement Model _____ Serial Number _____

Date Purchased _____ Dealer _____

ATTENTION:
READ YOUR OPERATOR'S MANUAL

RHINO®
1020 S. Sangamon Ave.
Gibson City, IL 60936
800-446-5158
Email: parts@servis-rhino.com





TO THE OWNER/OPERATOR/DEALER

To keep your implement running efficiently and safely, read your manual thoroughly and follow these directions and the Safety Messages in this Manual. The Table of Contents clearly identifies each section where you can easily find the information you need.

The OCCUPATIONAL SAFETY AND HEALTH ACT (1928.51 Subpart C) makes these minimum safety requirements of tractor operators:

REQUIRED OF THE OWNER:

1. Provide a Roll-Over-Protective Structure that meets the requirements of this Standard; and
2. Provide Seatbelts that meet the requirements of this paragraph of this Standard and SAE J4C; and
3. Ensure that each employee uses such Seatbelt while the tractor is moving; and
4. Ensure that each employee tightens the Seatbelt sufficiently to confine the employee to the protected area provided by the ROPS.

REQUIRED OF THE OPERATOR

1. Securely fasten seatbelt if the tractor has a ROPS.
2. Where possible, avoid operating the tractor near ditches, embankments, and holes.
3. Reduce speed when turning, crossing slopes, and on rough, slick, or muddy surfaces.
4. Stay off slopes too steep for safe operation.
5. Watch where you are going - especially at row ends, on roads, and around trees.
6. Do not permit others to ride.
7. Operate the tractor smoothly - no jerky turns, starts, or stops.
8. Hitch only to the drawbar and hitch points recommended by the tractor manufacturer.
9. When the tractor is stopped, set brakes securely and use park lock, if available.



Keep children away from danger all day, every day...



Equip tractors with rollover protection (ROPS) and keep all machinery guards in place...



Please work, drive, play and live each day with care and concern for your safety and that of your family and fellow citizens.

